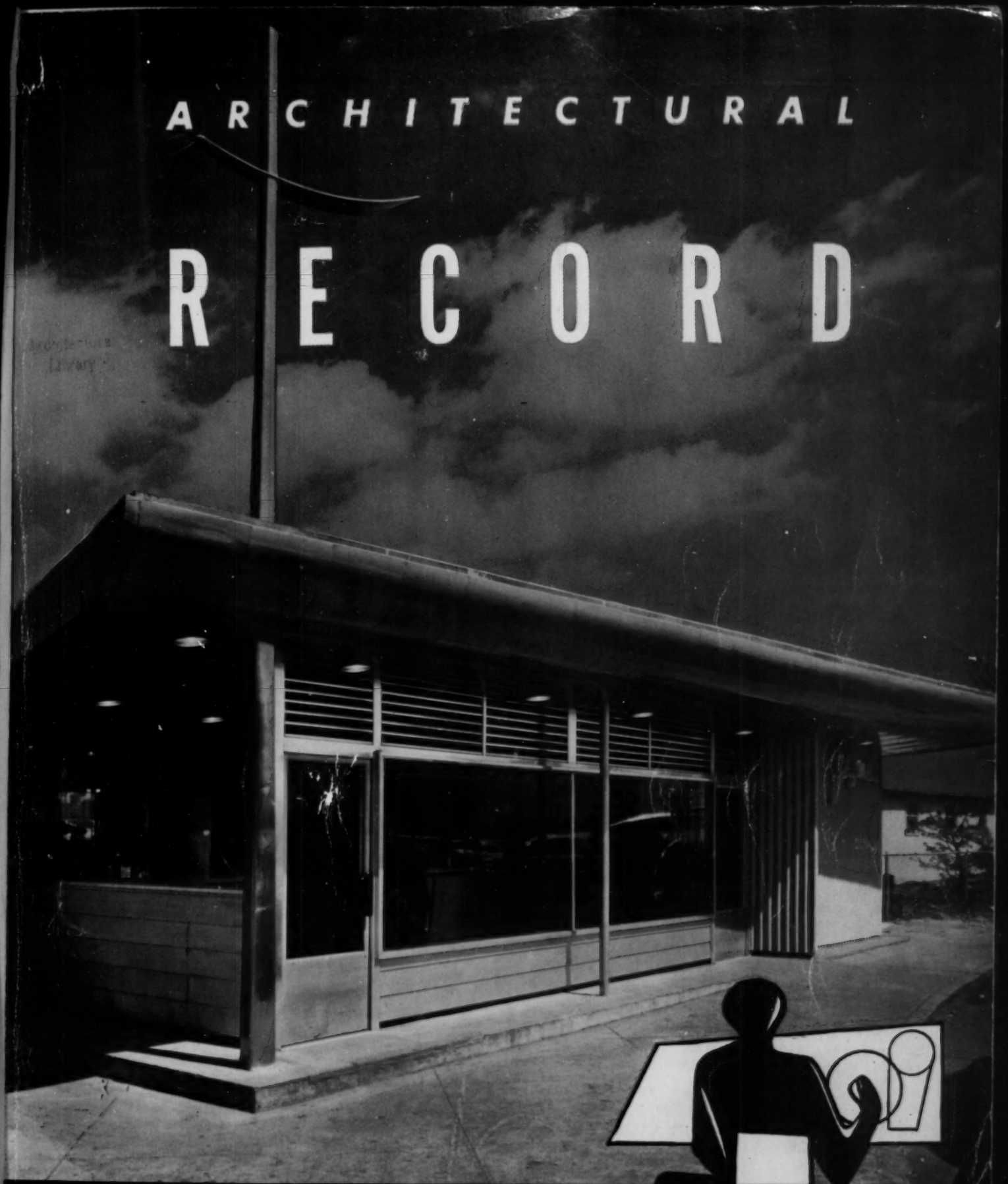
ARCHITECTURAL RECORD



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ARCHITECTURAL

RECORD

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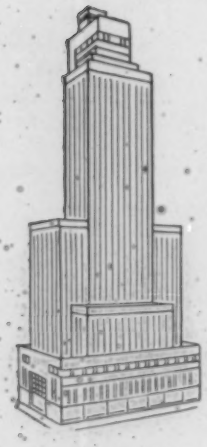

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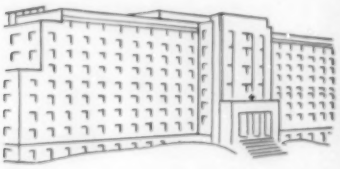

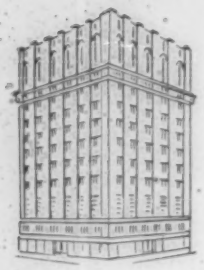

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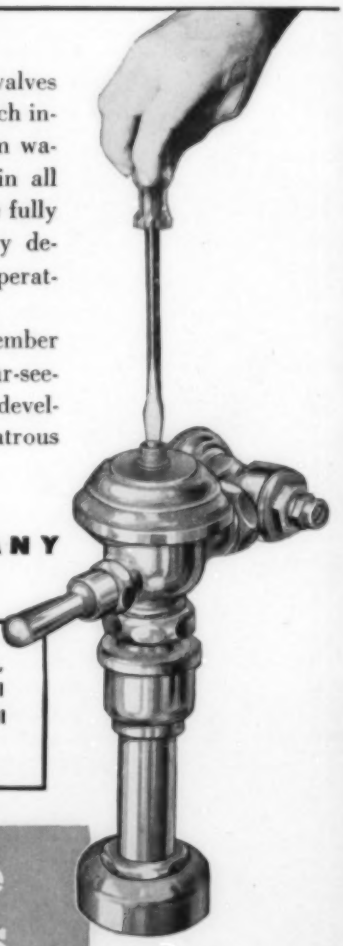

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THE RECORD REPORTS

House Still Tangled on T-E-W Bill • New Data Released by Joint Committee • Consumer Buying Plans Studied • States and Cities Aid Housing

While the House Banking Committee hearings on the Senate's comprehensive housing bill still were in progress, federal statisticians, holding their stop watches on new home building, saw a healthy 1948 record in the offing. Even as they tallied up April "starts," they uncovered a new high — more dwelling units launched under FHA inspection than even last October's peak.

Their boom predictions for the year took no account of the housing bill itself: they knew that, whether or not the measure became law, it would have little effect on 1948 construction.

Economic Role Stressed

In the midst of the House Banking Committee hearings on the bill came an analysis from the Congressional Joint Committee on the Economic Report which commented pointedly upon housing as a part of the over-all economic scene. Said the joint group:

"We recommend that the government do everything possible to stimulate research, to improve industry methods, to enact reasonable building codes, to eliminate monopoly controls in the material field, and to reduce labor union restrictions on housing. Furthermore, we recommend that government credit policies be so varied from time to time as to maintain as level a rate of construction as possible."

The Committee expressed favor for grants to local governments for urban redevelopment. It stated, however, that FHA mortgage insurance policies have been too liberal.

A.I.A. Supports Bill

Presenting their statement in support of the T-E-W bill before Congress, the American Institute of Architects urged amendment of the Senate-passed version on several counts. A.I.A.'s case was written by Louis Justement, prominent Washington architect and chairman of the Urban Planning Committee. Recommendations were made for implementing the bill as it went over to the House, for giving it greater flexibility "in experimental use of its loan provisions." At the same time it was made clear that A.I.A. approval of the legislation was not conditioned on adoption of the changes offered. Institute suggestions:

1. Authorize the Federal Housing Administrator to begin experiments with changed financing procedures. Set aside $50 million for financing housing projects in this test. Results would serve as a pattern for a future housing program.

2. Bring the mortgage insurance provisions under Title II into line with realities of housing and building costs. Increase per-house cost limitations by at least 10 per cent.

3. Separate the administration of federal aid for urban redevelopment from the administration of the Housing Act. (A.I.A. objected to seeing the administration of this important function — slum clearance and urban redevelopment — made subordinate to housing.)

4. Resume public housing for low-income families, do not leave them to the "filtering down" process. "It would be inhuman," said Mr. Justement, "to completely ignore the housing needs of the low-income families for four or five years until vacancies approached normal. In the meantime, therefore, we favor an immediate resumption of public housing, on a substantial scale, as envisaged in this bill."

5. Raise cost limitations in the public housing section by at least 50 per cent. Construction costs have gone up over 100 per cent since the Housing Act was passed 10 years ago.

6. Increase reliance on Local Housing Authorities for initiation, planning, design and management of housing projects. Restrict the Public Housing Administrator increasingly to the single function of extending federal financial assistance to these local authorities.

House Stresses Basic Issues

The House hearings simmered down to these basic issues:

1. Should the federal government assume the responsibility of financing housing?

2. Were states and municipalities in a financial position to handle their own housing problems?

3. If the federal government should enter the housing business as prescribed by T-E-W, how far should it plunge?

Chairman Wolcott frequently reminded the committee members that these were the decisions facing them.

Further Findings Released

As the life of the Joint Housing Committee was extended to complete its data and reports, additional findings and analysis came to light. For instance, there is a recommendation to require certain minimum standards in residences and to provide legislation to see that such requirements are carried out where federal funds are relied on to finance or insure home building.

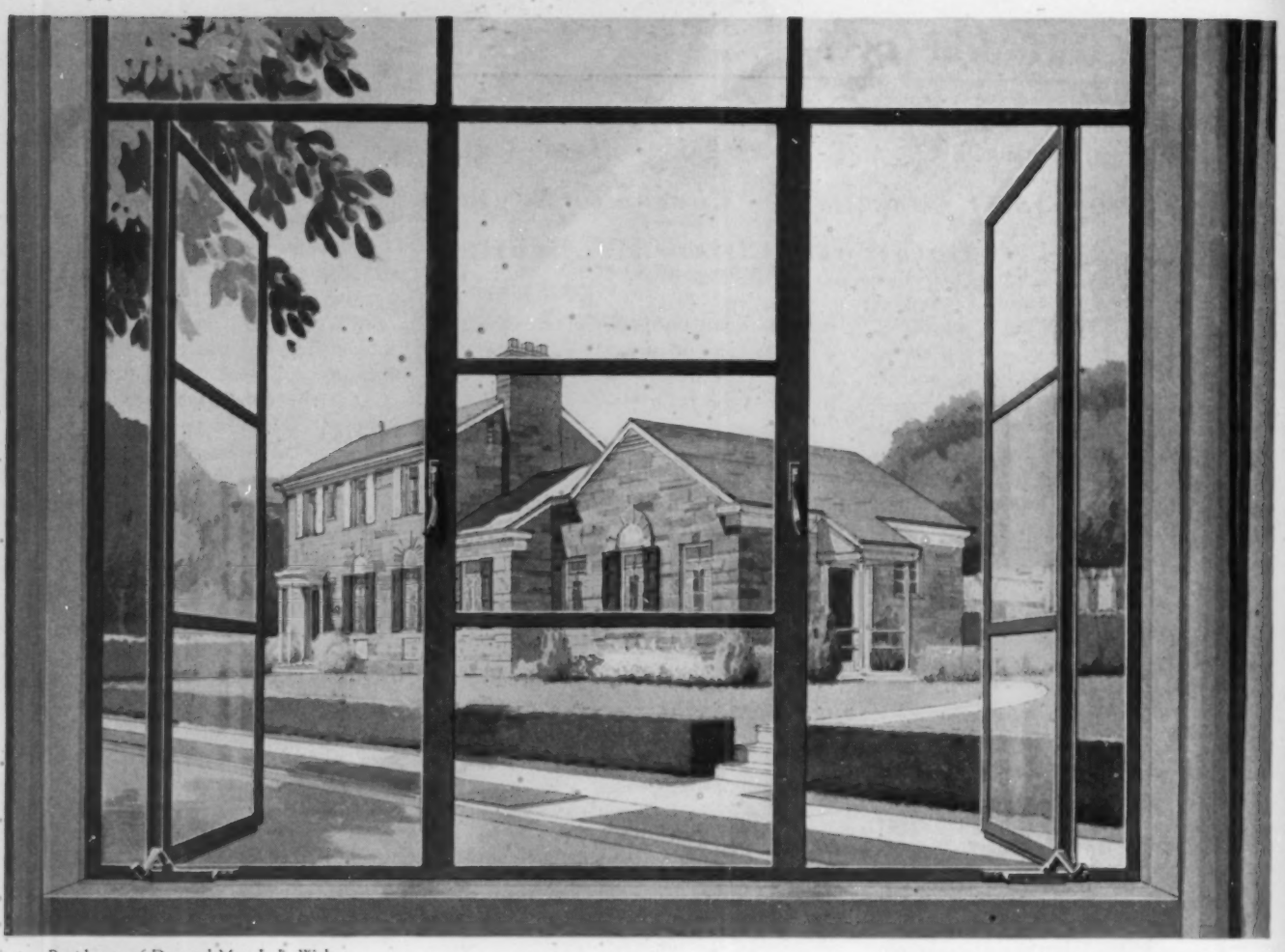
A new section in the Federal Fair Trade Act is proposed to require that builders "provide the buyer with a bill of particulars setting forth the manner of construction and materials used." In case of a violation, the matter could be referred to the Federal Trade Commission just as in mislabeling of other products.

Among other proposals:

Withhold loans or insurance on homes unless constructed under the industry engineered plan;

(*Continued on page 10*)

—Drawn for the RECORD by Alan Dunn



Residence of Dr. and Mrs. L. L. Weber, Philadelphia, Pa. Architect: Jesse Stetler. Builder: Meyer Gussman.

Another example of the wide application of Lupton Metal Windows is shown in this physician's office and home. Here, Lupton Metal Casements provide all the benefits of modern window construction. With Lupton Casements, air flow is easily controlled by attractive Roto-operators located at the sill. Extended hinges permit cleaning all glass from inside the room. Neat, metal frame screens or glass insulating panels can be easily attached on the inside of the window. There is a Lupton Metal Window for every type building—industrial, commercial, residential. Write for our catalog or see it in Sweet's.

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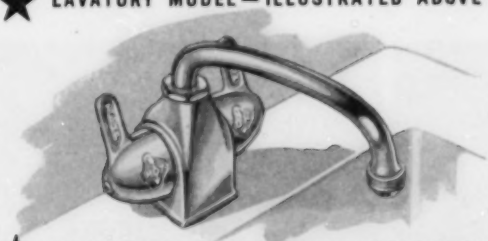
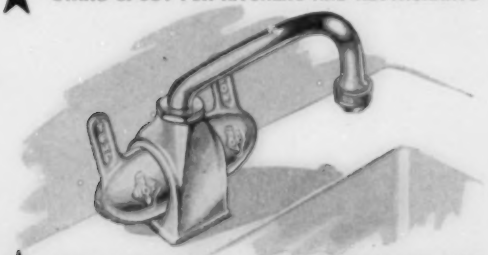


★ SWING SPOUT FOR KITCHENS AND RESTAURANTS



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10. Where necessary, temperature handle may be locked in any position.

WRITE FOR COMPLETE LITERATURE

THE RECORD REPORTS

(*Continued from page 7*)

Amend existing financial rules to stimulate purchases of low-cost prefabricated homes;

Approve no loans or insurance until municipalities adopt uniform performance type of building codes and amend their license and permit regulations so that they no longer penalize industrialized housing.

This pointed conclusion is made on plumbing: "There are apparently many things in the plumbing supply industry which need correction. The inquiry should be reopened and every factor of this tightly held branch of the construction industry gone into from the several aspects of productivity, distribution, prices, and profits."

More Information Urged

Authority and funds to gather and supply data regularly should be provided the various federal agencies, says this analysis of testimony and studies made for the Committee by its staff. Specifically:

HHFA should report monthly on the financing of housing.

The Census Bureau should report fully on all phases of housing in the 1950 census and each 10 years thereafter.

Commerce Department should complete this year or next the research into development of a uniform plumbing code, should develop a uniform heating code, and make a cost-reduction study to include, among other things, improvements in distribution of building materials and equipment.

Julius Shulman photo

Another view (the parking entrance) of Bullock's Palm Springs store, shown in detail on pp. 123–127 of the April RECORD. *Walter Wurdeman and Welton Becket, A.I.A., Architects*

Report Made on Surplus

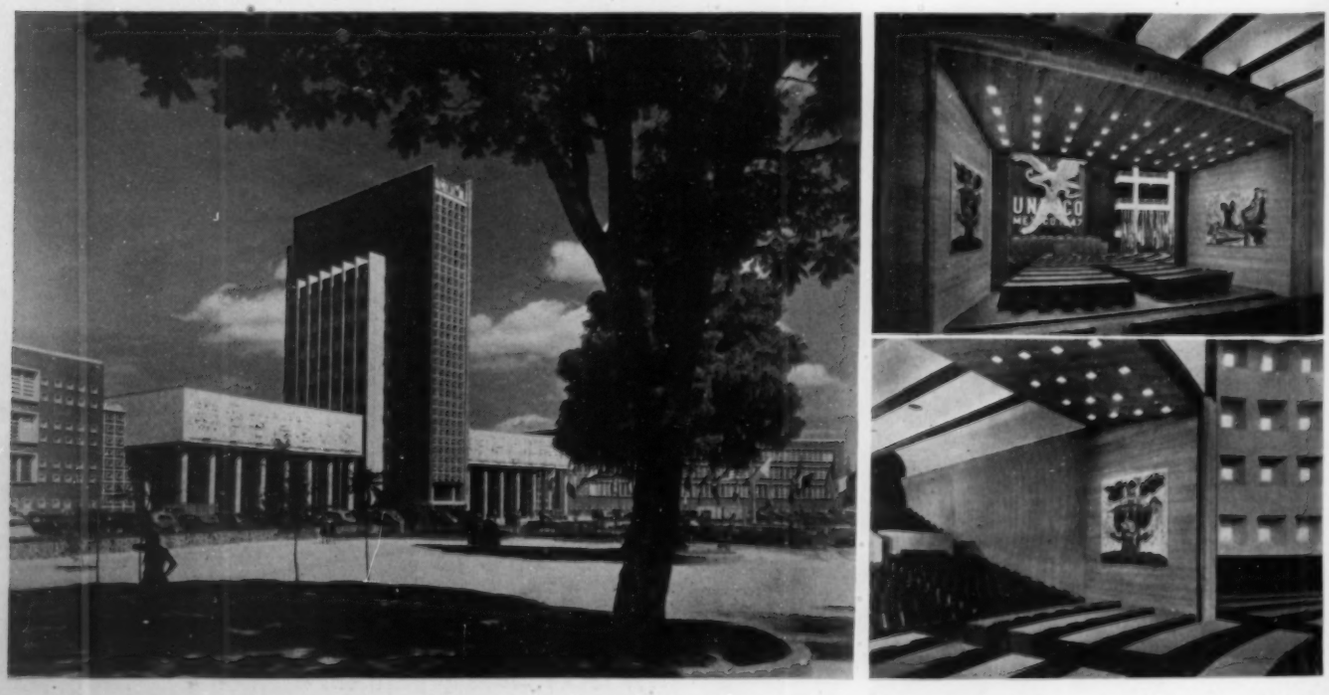
The story of surplus domestic real property in the years following the war has been told by the Senate Committee on Expenditures in Executive Departments as a result of its investigation of surplus disposal. This property, which originally cost $9.2 billion, constituted 23 per cent of our total domestic surpluses of war-acquired goods. It consisted of plants, airfields, shipyards, military and naval training bases, etc.

The bulk of the property was made up chiefly of industrial plants to increase the output of aluminum, steel, magnesium, and other war goods. A total of 1257 war plants, costing $5.5 billion, have been declared surplus, of which 770 have been disposed of. The government realized 39 per cent of the acquisition cost. Disposal of the war plants had been one of the slowest and most difficult phases of the surplus program. Over one half of the total value of the remaining undisposed-of surplus is real property.

Consumer Buying Plans Studied

In a survey taken during the first 10 weeks this year the Federal Reserve Board found that consumers expressed intentions to maintain buying of houses, automobiles, and other durable goods at approximately the high levels of 1947.

(*Continued on page 12*)



National Teachers' Schools, Mexico City, designed by Mario Pani, can handle more than 11,000 students in two shifts. Main auditorium (two smaller photos at right) seats 650, has a stage specially constructed to accommodate either large or small functions. The fore-stage can be isolated by a curtain, and its floor can be unmounted. Auditorium is finished in Flexwood, has bronze and iron windows. The school was presented in more detail in the July, 1947 ARCHITECTURAL RECORD *when still under construction*

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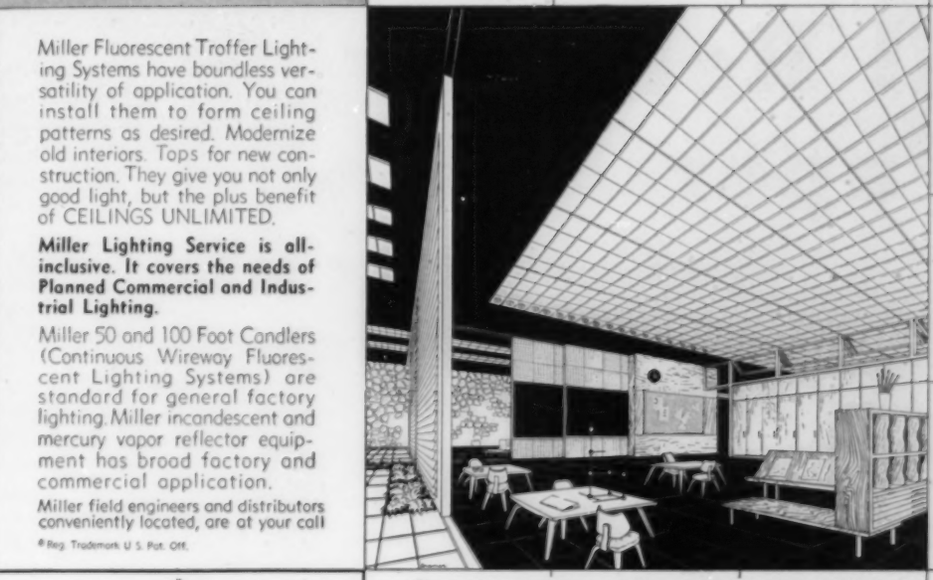
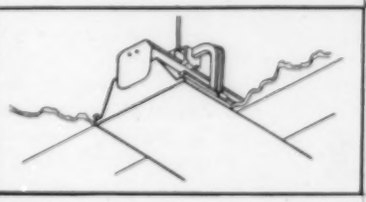


Classroom—Architects: Allen and Edwin Kramer, N.Y.



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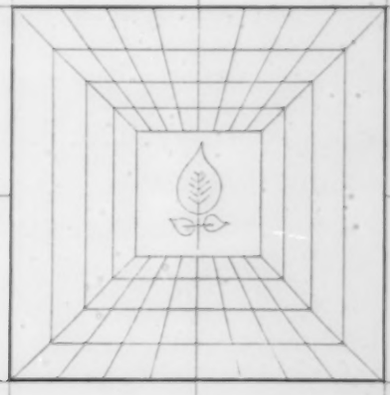

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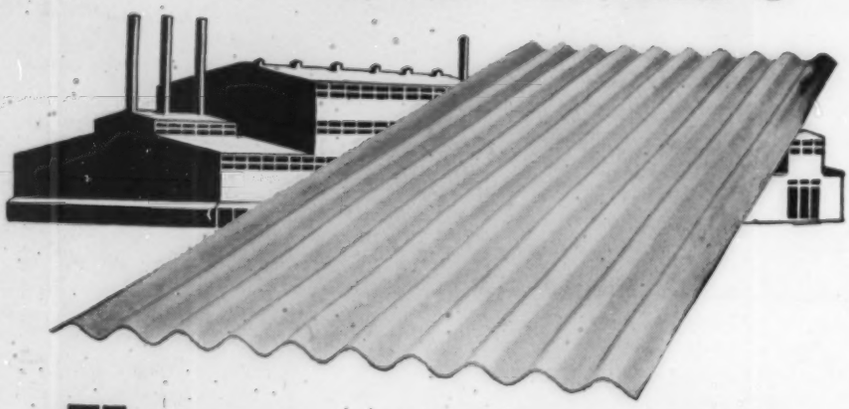
Planning a

Chemical Plant Oil Refinery Paper Mill?

...or an addition?



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THE RECORD REPORTS

(*Continued from page 10*)

This finding is from the third annual determination of the financial position of consumers and makes available the status, buying plans and general outlook of consumer spending units.

However, the Board points out that total prospective demand for houses was somewhat lower in early 1948 than in the previous year and still lower than intentions to buy in 1946, with the decline most marked in the case of incomes below $2000. Still, buying plans for new houses were larger than the estimated number of completions of new houses for owner-occupancy in 1948. More than a million said they would or probably would buy new houses, and almost half were willing to pay more than $75,000.

About three-fourths of the 1948 demand came from those who did not own homes. Not quite one-fourth were present home owners. Veterans of World War II continued to be important prospects, although the difference between veteran and non-veteran in total intentions was found to be narrowing.

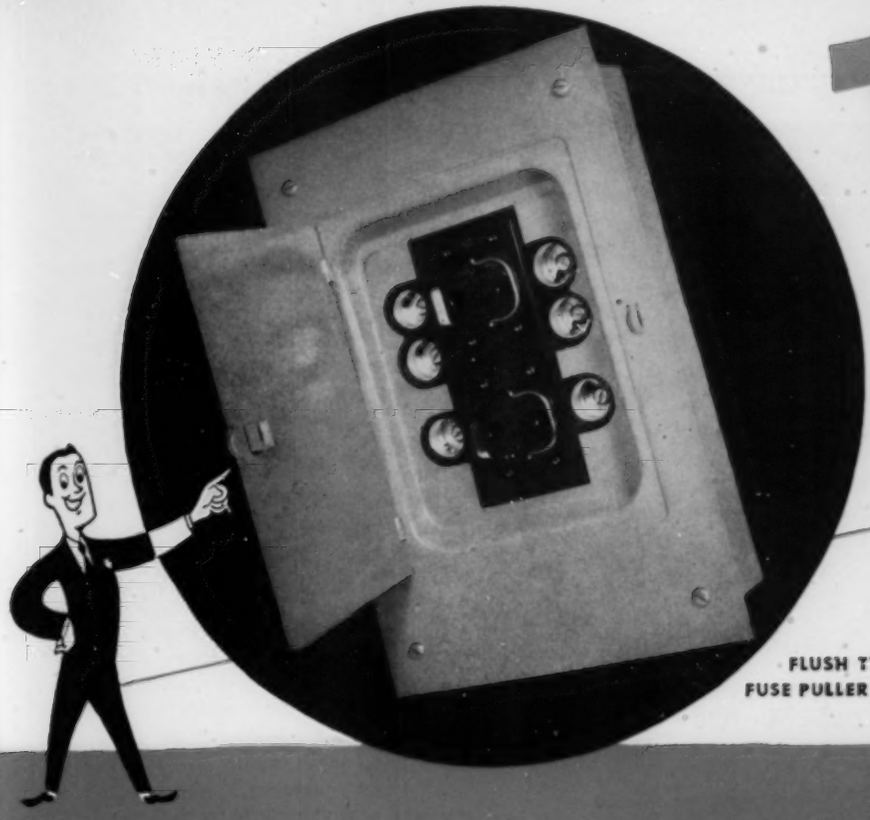
The Reserve Board reported that about 2.2 million consumers bought new or existing houses in 1947, spending roughly $15 billion. About 40 per cent of the buyers were World War II veterans; 9 per cent of veteran consumers bought, compared to 4 per cent of non-veteran.

States Aid Housing

Nine states now have enacted laws for state-financed aid to home building, in all but two cases specifically for veterans' temporary or permanent housing. A breakdown of the information gathered by the National Association of Housing Officials shows that New York ranks first in accomplishment and volume of work scheduled. It had nine low-rent public housing developments completed and occupied on Feb. 1, 1948, 10 others under construction, and 20 in the planning stage. New Jersey provides $41 million for aid to municipalities and colleges for veterans' housing, and Connecticut $5.5 million with a $15 million guarantee of local bonds. Other states include Illinois, Massachusetts, Wisconsin, New Hampshire, California and Ohio.

Ten cities have set up programs in which neither state nor federal aid is involved, the Association finds. Some are for direct construction or financing of redevelopment; others give tax concessions or donate sites. Included are Chicago, Detroit, Indianapolis, Milwaukee, Minneapolis, New York City, Providence, Rochester, St. Louis and Yonkers (New York).

(*Continued on page 14*)



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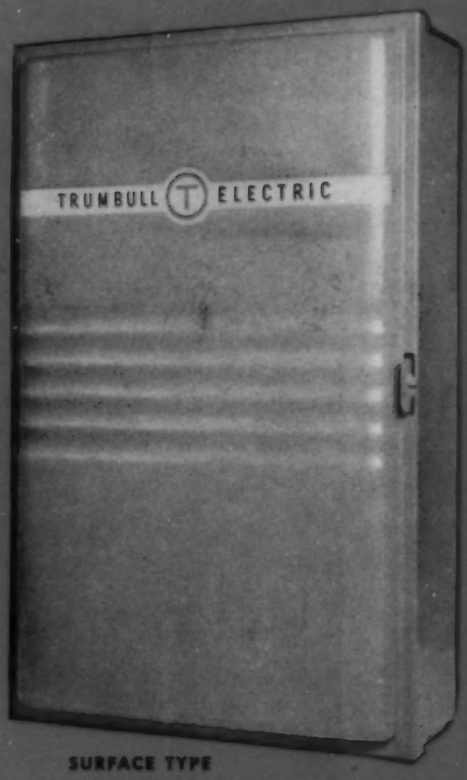

SURFACE TYPE
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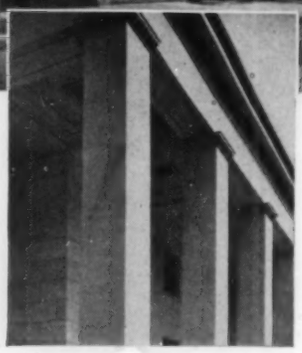
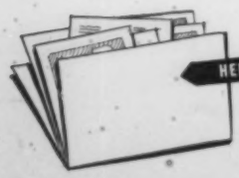
GEORGIA MARBLE—THE MODERN BUILDING MATERIAL



The Case of the
SQUARE
COLUMNS

U. S. Post Office and Courthouse, Athens, Ga.
U. S. Treasury Dept., Architects
A. Farnell Blair, General Contractor

The use of solid blocks of marble to form square columns in conjunction with an over-all Georgia Marble building created an imposing effect of great strength, dignity and beauty. This building is another striking illustration of the adaptability of *"The Marble with the Sparkling Crystal"* to modern building conditions.



Next time you are considering a project incorporating marble, write to our nearest sales and service office stating the type of building. We will send you a specially prepared file containing detail sheets and other information of interest and value.

GEORGIA MARBLE

The Marble with the Sparkling Crystal

Produced by THE GEORGIA MARBLE COMPANY *of Tate, Georgia*

Sales and Service Offices • NEW YORK, N. Y. • WASHINGTON, D. C. • CLEVELAND, O. PHILADELPHIA, PA. • BRIGHTON, MASS. • ROCHESTER, N. Y. • ATLANTA, GA.

THE RECORD REPORTS

(*Continued from page 12*)

Eight cities provide for planning of redevelopment: Baltimore, Minneapolis, Philadelphia, Pittsburgh, Providence, Richmond (Calif.), St. Louis and San Francisco. Five have set up special housing offices or agencies: Dearborn, Denver, New Orleans, San Jose and Toledo.

Synthetic Fuel Plants

In addition to synthetic liquid fuel demonstration plants for extraction of oil from coal and oil shale as a means of helping out the national oil shortage, Congress this year took up legislation to stimulate construction by private industry of commercial-sized plants in this field. Under the bill, RFC is authorized to loan up to $350,000,000 for this purpose; it can provide aid for "as many plants as are required to furnish an adequate basis upon which to develop a rapidly expandable and technologically advanced synthetic liquid fuel industry."

If private industry fails to build the plants, RFC is given power to build and operate the plants under contracts with private industry.

Other Federal Developments

Other activities in the National Capital of interest to construction include:

1. New laws this year provide for a $25 million building for the General Accounting Office in Washington and for a courthouse to accommodate the U. S. Court of Appeals and the U. S. District Court in the District of Columbia.

2. Other legislation would set $250,000 as the minimum on the annual construction allotment for any state under the Hospital Construction Act. This would affect Wyoming, Nevada, Delaware, Vermont, Montana, Alaska and Hawaii. Another bill would continue as eligible under the act those states which had failed to enact required measures in time and would make them eligible upon such enactment.

3. The Veterans Administration has warned veterans, builders and lenders against making or accepting so-called "side payments" in the sale of home properties through GI loans, pointing out that such payments are a direct violation of law and subject offenders to prosecution.

❖ ❖ ❖

ON THE CALENDAR

Through July 25: "The Architectural Masterpieces of Louis Sullivan," an exhibition of photographic enlargements, Museum of Modern Art, New York City.

(*Continued on page 16*)

Rolling Steel Doors

Manually • Mechanically • Power Operated

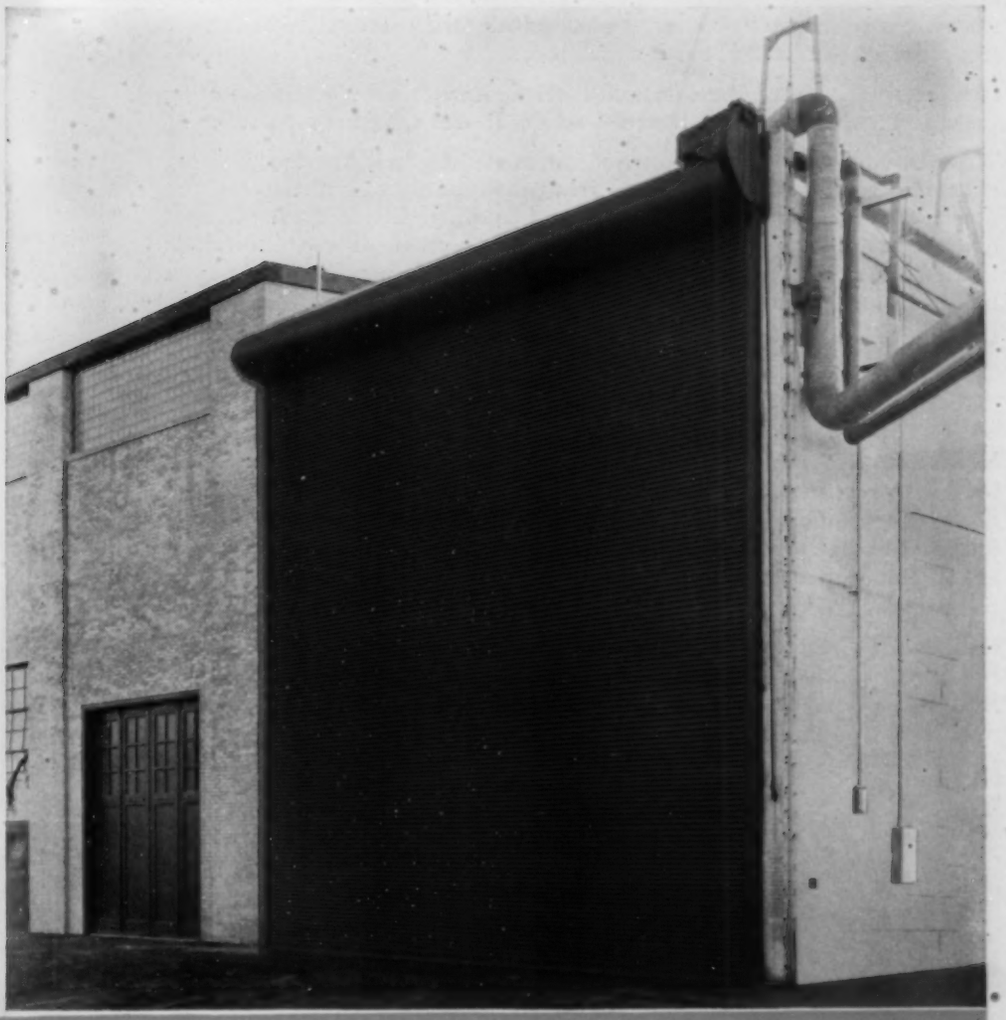
Vertically opening Rolling Steel Doors offer many operating advantages in addition to providing greater protection and longer life. In Mahon Rolling Steel Doors you get all of these advantages plus a greater door value . . . this is immediately apparent if you check the details of construction, and the materials employed, against any other door of this type. You will find that Mahon Rolling Steel Doors are designed and built to give trouble-free service for a longer period of time. See Mahon Insert in Sweet's File for complete information, details and specifications.

THE R. C. MAHON COMPANY

Detroit 11, Michigan • Western Sales Division, Chicago 4, Illinois

Representatives in All Principal Cities

Manufacturers of Rolling Steel Doors, Grilles, and Underwriters' Labeled Rolling Steel Doors and Fire Shutters, and Mahon Steel Deck for Roofs, Sidewalls, Partitions, Acoustical Ceilings, Permanent Floor Forms.



One of Two Mahon Rolling Steel Doors Selected for Two Openings 30' x 30' in the General Electric Test Cell Building, Lynn, Mass. Turner Construction Company, General Contractors.

ROLLING STEEL DOORS, SHUTTERS AND GRILLES TO MEET EVERY REQUIREMENT

MAHON

~it's from HERE

to HERE

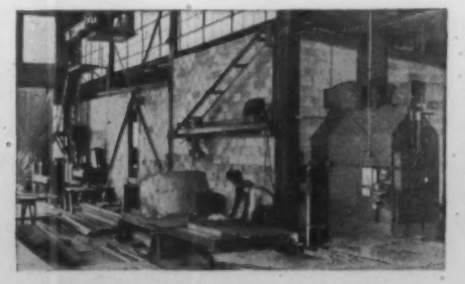
● It's an easy matter to define the "comfort zone" in a plant. It's that eight or ten feet above the floor that must be heated for employee comfort. But it's quite another matter to heat it economically and effectively when thirty feet of air space extend above it to the roof.

Such a problem faced the Minweld Steel Company in its new fabricating plant in Pittsburgh—and a Dravo *Counterflo* Heater solved it for them.

This powerful unit discharges warm air above the heads of the workers, circulates it through the working area, and returns it without drafts to the base of the heater for reheating and recirculating. This method maintains uniform heat throughout the 6,500 square foot working area—even though two 19-foot square truck doors open at each end, and metal-siding walls are broken by an abundance of windows.

Installation of the self-contained Dravo *Counterflo* Heater required only a fuel line, a power line and a small venting stack—no boiler room or piping. Ductwork, too, is unnecessary because capacity is ample to blanket a radius of 250 feet completely and *evenly* with warm air. The unit is entirely automatic . . . it is shut off at night—and at 6 A.M. the watchman simply flips a switch and the plant is warm fifteen minutes later.

Bulletin IU-516 contains valuable information about the Dravo *Counterflo* Heater which you can apply to your own heating problems. Write for it, Heating Section, Dravo Corporation, Dravo Building, Pittsburgh 22, Pa.



In a fabricating plant such as Minweld Steel Company, man-hours and efficiency are vitally important. "In a recent two week period," Owner William Minnotte says, "we estimated a saving of twenty man-hours because our men didn't have to stop work and try to get warm around old-fashioned coal stoves. Increased productivity, of course, is also tied to the increased comfort of our employees."

Dravo also manufactures the *DRAVO CRANE CAB COOLER* for air conditioning hot-metal crane cabs

DRAVO CORPORATION

PITTSBURGH · CLEVELAND · PHILADELPHIA · DETROIT · NEW YORK
CHICAGO · ATLANTA · BOSTON

Sales Representatives in Principal Cities

Mfd. and sold in Canada by: Marine Industries, Ltd., Sorel, Quebec

DRAVO

THE RECORD REPORTS

(*Continued from page 14*)

July 6–10: 2nd International Store Modernization Show, Grand Central Palace, New York City.

July 21–23: Summer Convention, American Society of Civil Engineers, Olympic Hotel, Seattle, Wash.

Aug. 2–27: 2nd Annual Silversmithing Workshop Conference for teachers, Rhode Island School of Design, Providence, R. I.

Aug. 4–8: 2nd Annual Pacific Northwest Arts and Crafts Fair, Bellevue, Wash.

Sept. 24–Oct. 2: Nation-wide Fall Home Fashions Festival, sponsored by National Retail Furniture Assn.

Sept. 27–Oct. 1: 3rd National Plastics Exposition, Grand Central Palace, New York City.

ARCHITECTS, CONTRACTORS FORM JOINT COMMITTEE

The American Institute of Architects and The Associated General Contractors of America have established a joint committee to consider problems in building construction which are of mutual concern to architects, contractors and the public. The committee will be known as the National Joint Cooperative Committee of the A.I.A. and the A.G.C.

The two associations have worked together for a number of years on such matters as standard contract provisions, simplified specifications and recommended bidding practices. Recently they developed and published jointly "A Suggested Guide to Bidding Procedure," which establishes standards for obtaining bids that eliminate waste and misunderstanding that might lead to unexpected costs for the owner.

A.I.A. members of the joint committee are: James R. Edmunds, Jr., of Baltimore, Md., a past president of the Institute, (co-chairman); Edward G. Conrad, Cleveland, Ohio; and Harry B. Tour, Knoxville, Tenn. All three men are members of the A.I.A. Committee on Industrial Relations, of which Mr. Edmunds is chairman.

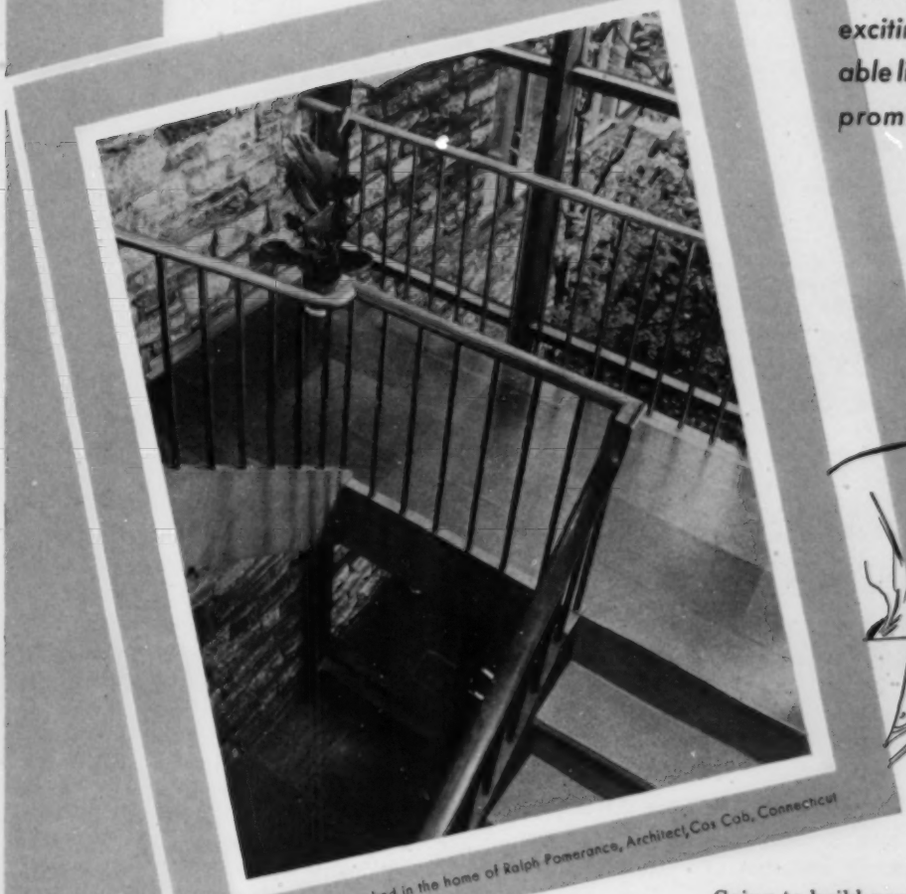
Members of the A.G.C. designated as joint committee members are: Walter L. Couse, Detroit, Mich., a past chairman of the Building Contractors' Division of the A.G.C. (co-chairman); A. L. Atherton, Seattle, Wash., present chairman of the A.G.C. Building Contractors' Division; and William Muirhead, Durham, N.C., a past president and present secretary-treasurer of the A.G.C.

Edmund R. Purves, director of Public and Professional Relations for the A.I.A., and W. A. Snow, manager of the Building Contractors' Division of the A.G.C., will act as co-secretaries.

(*News continued on page 158*)

Build a stairway of Cork in your dream house

"I've found my cork staircase an exciting step forward in comfortable living," says Ralph Pomerance prominent New York Architect.



Staircase photographed in the home of Ralph Pomerance, Architect, Cos Cob, Connecticut

Going to build your dream house soon? Or remodel your present one? Then a Cork Staircase should also head your list of "musts." Cork's the staircase that's quiet...that'll last for years and keep its youth. Your architect or contractor can tell you about them, and, of course, will recommend Corinco Cork Staircases. In case you want to think about Cork Staircases on your own, mail us the coupon below for our free folder called "Stairway of the Stars." Keep it in your home planning portfolio.

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CORK TILE
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CORK INSULATION CO., 155 E. 44th St., New York 17, N.Y.
Dept. R7

Gentlemen:

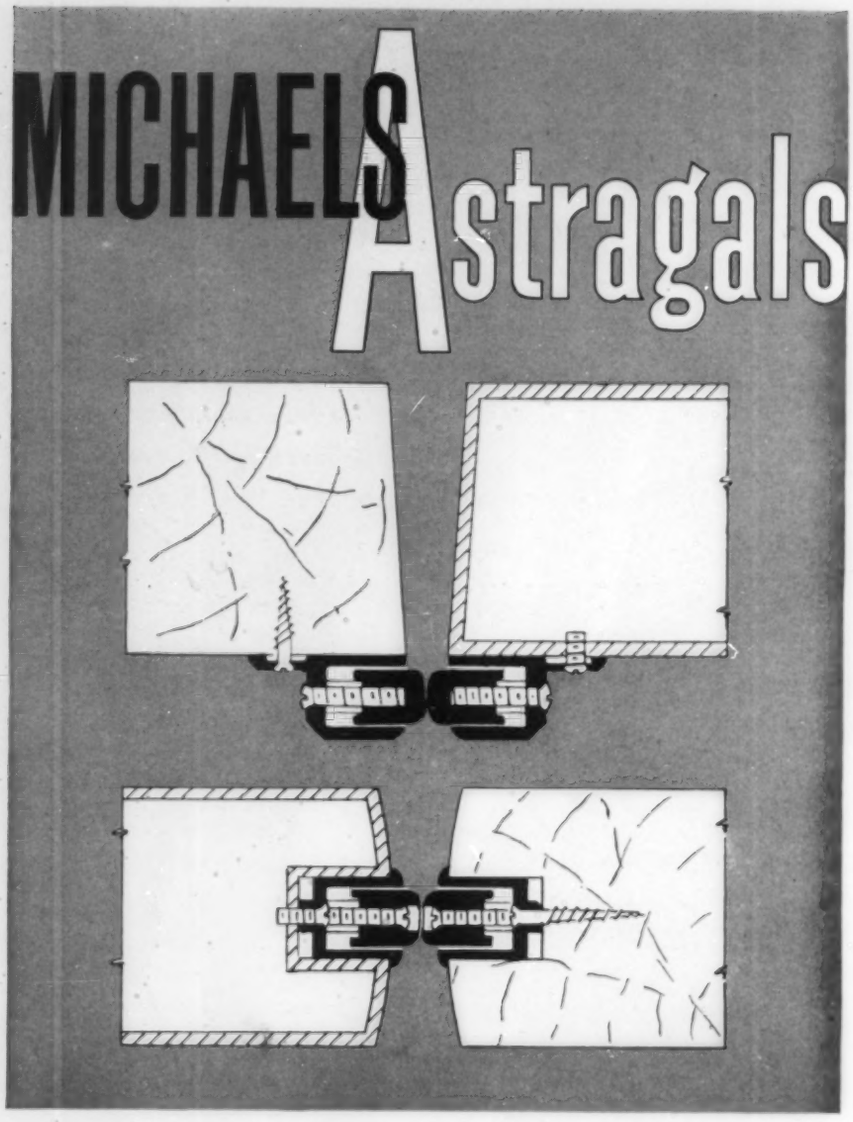
I am interested in learning more about CORINCO Cork Staircases. Please send me, free of charge, and without obligation, your booklet, "Stairway of the Stars."

Name_____

Street_____

City_____ State_____

MICHAELS Astragals



Write today for information and prices on Michaels Adjustable Astragals. Made of extruded bronze, aluminum or nickel, they are simple, practical, rugged, easily installed and adjusted, and available in several styles. Two are shown above. Type A (top illustration) may be applied to either wood or hollow metal bevel doors. Also used as a stop bead. Type E (lower illustration) is for bullnose hollow metal or wood double doors. Both types may be used at the bottom of doors. Michaels Astragals help keep doors closed tightly . . . eliminate drafts and air currents . . . keep out dirt and dust. Write for details. Astragals are only one of many items in the Michaels line. So whatever building product you need, if it's made of metal, we may have it or can make it.

MICHAELS PRODUCTS

Bank Screens and Partitions
Welded Bronze Doors
Elevator Doors
Store Fronts
Lettering
Check Desks (standing and wall)
Lamp Standards
Marquises
Tablets and Signs
Name Plates
Astragals (adjustable)
Stair Railings (cast and wrought)
Wrought and Cast Radiator Grilles
Grilles and Wickets
Kick and Push Plates
Push Bars
Cast Thresholds
Extruded Thresholds
MI-CO Parking Meters
Museum Trophy Cases

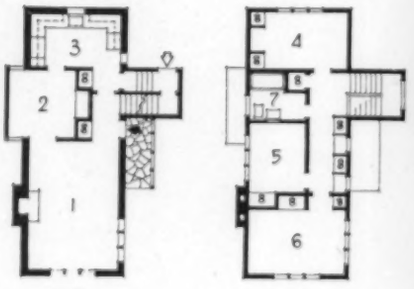
The MICHAELS ART BRONZE COMPANY, 234 Scott St., Covington, Ky.

Member of the National Association of Ornamental Nonferrous Metals Manufacturers

NEWS FROM CANADA

By John Caulfield Smith

Number 12 in the series of London Chapter small home designs. Key to plans below: 1, living room; 2, dining room; 3, kitchen; 4–6, bedrooms; 7, bathroom; 8 closet



London Chapter Houses

A valuable public service has been performed by the London Chapter, Ontario Association of Architects. Without thought of personal gain, its members have prepared a series of house designs to meet a wide range of family needs. In doing so they assist persons who, possibly for financial reasons, would not ordinarily consult an architect, and help achieve a high standard of residential design in their community.

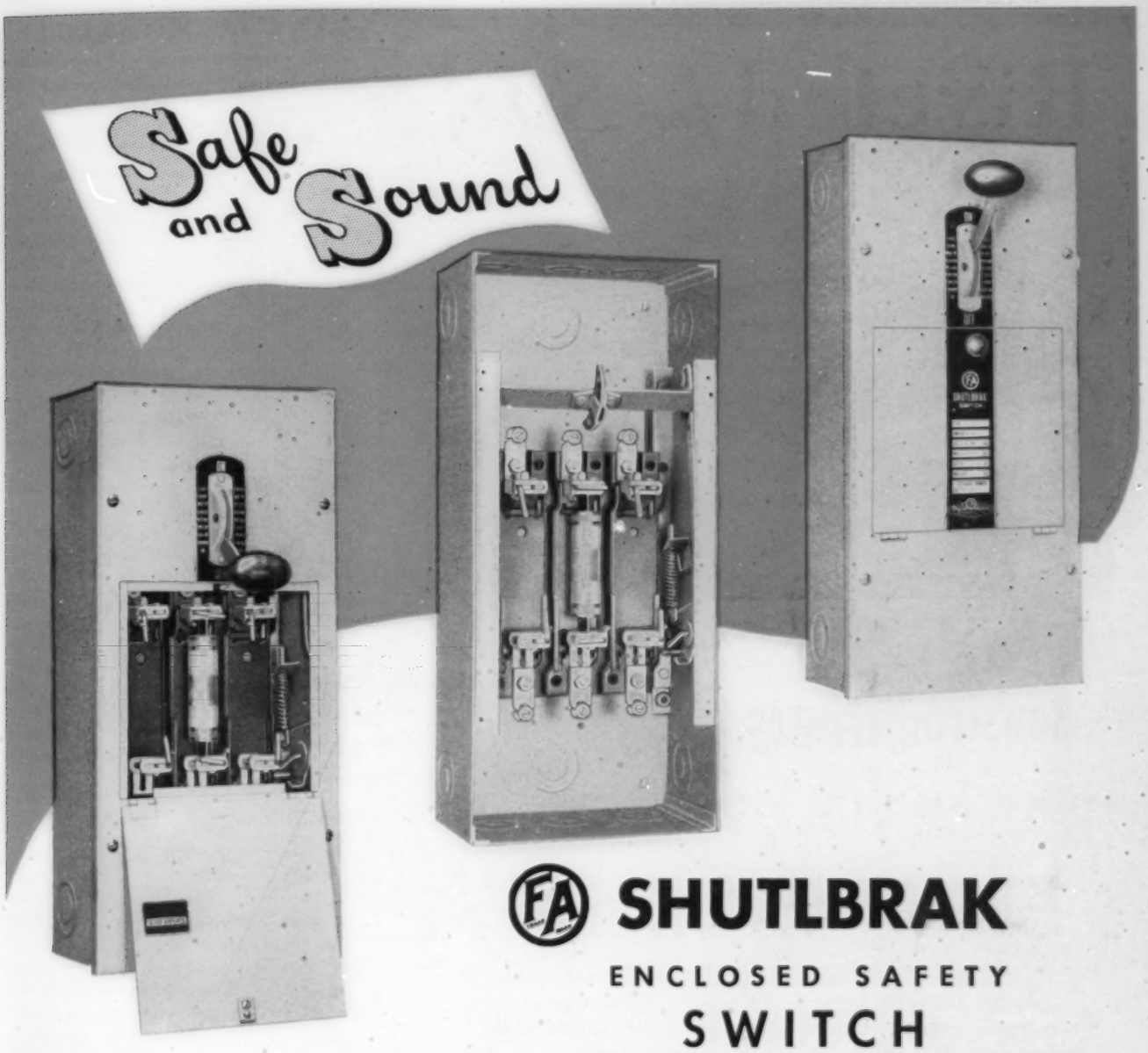
Sketch designs and descriptions have been published in the London Free Press, and residents may obtain three sets of plans and specifications for any house from the London City Hall. The nominal sum of $10 is charged to cover blueprinting costs. While the service provided by the Chapter is intended to be purely local in scope, chapter members hope the example set will be followed by architects in other communities.

Foreclosure Era Ahead?

Criticism of current government home loan policies has been voiced by R. H. Reid, president of the Dominion Mortgage & Investment Association. The Association's membership is composed of over 50 loan, trust and insurance companies, whose billions of dollars of assets form a pool of mortgage money on which Canadians are drawing extensively.

In addressing the annual meeting of

(*Continued on page 20*)



SHUTLBRAK

ENCLOSED SAFETY SWITCH

YOU'LL FIND ALL THE REQUIREMENTS for safety and dependability in the improved FA Shutlbrak Switch. It's a high quality, heavy duty industrial switch that is ideal for motor control, service entrance or for any job requiring an operating switch that is *safe and sound.*

This safety type FA Shutlbrak Enclosed Switch has the popular safety feature of interlocking fuse doors. The fuse compartment doors automatically lock when the current is "on"... fuses being accessible only when the switch is "off." (An intermediate position of the operating handle permits access by an authorized person.)

Embodying the latest in design and construction, the FA Shutlbrak Switch gives long-lasting, economical service . . . principally because of its split-second speed of operation; its new shuttle mechanism that gives quick make and break connections; heavily silvered copper contacts that roll under pressure and actually improve with use; and new clamp-type fuseholders and solderless pressure connectors that assure years of trouble-free service.

Add up all of these features and it's easy to see why the FA Shutlbrak Switch is dubbed *safe and sound.*

Capacities: 30 to 1200 amps., 250 volts AC or DC; and 575 volts AC in 2, 3 and 4 poles. See your FA Representative for more details or write for Bulletin No. 501.

FA TRADE MARK

Frank Adam Electric Co.

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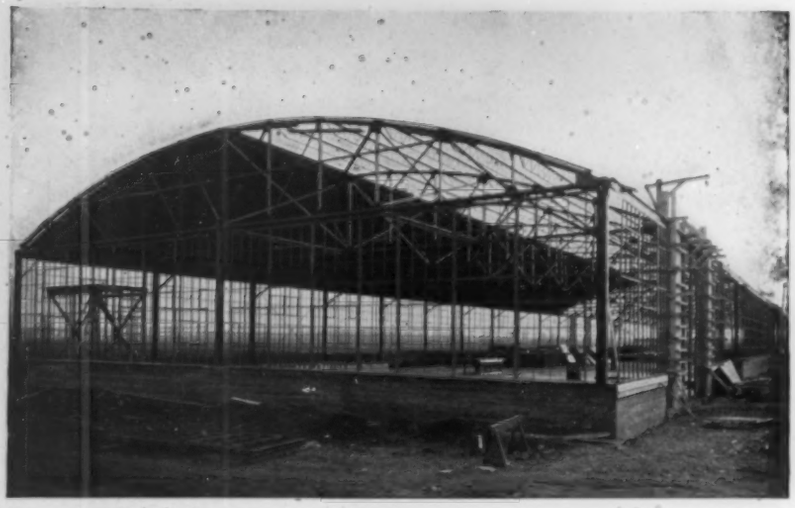
Makers of BUSDUCT • PANELBOARDS • SWITCHBOARDS • SERVICE EQUIPMENT • SAFETY SWITCHES • LOAD CENTERS • QUIKHETER

Riveted *for Safety*



Bowstring Trusses *by* MESKER STEEL OF Evansville IND.

RIVETING in truss fabrication means positive security and above all simplicity in the finer phases of steel construction.

The Bowstring Truss, a truly original Mesker development, provides greater strength and flexibility to meet every requirement of industrial or commercial construction, wherever clear floor space is required.

THE Mesker Bowstring Truss design eliminates columns. Greater floor space and the resulting finer appearances are but another feature of Mesker design. Mesker in truss fabrication, means safety, means better and standardized construction.

Mesker Steel prefabricated products are superior in every field — a true fact you expect from one of the oldest fabricators in the country.

WRITE TODAY FOR CATALOG AND FREE DESIGN INFORMATION

GEO. L. MESKER STEEL CORP.
EVANSVILLE 8, INDIANA

NEWS FROM CANADA

(*Continued from page 18*)

the Association, Mr. Reid said: "From an immediate political standpoint, it is very attractive to governments to encourage and facilitate increased home ownership through easement in purchase terms. From past experience, the lending institutions know the almost certain consequences all too well. It appears inevitable that, at some period in the not too distant future, there will be a substantial decline in the real estate market. All too little consideration is being given by government authorities to the repercussions that will follow when slender equities disappear and indebtedness exceeds the market value of the home owners' property."

It may be that Mr. Reid had the government of Ontario particularly in mind. To reduce the size of down payments on newly built houses it recently made second mortgage financing available on very easy terms. Loans may be made for not more than half the required down payment, and may not exceed $1250. They bear 3½ per cent interest, in contrast to the 5 to 10 per cent charged on second mortgages obtained through normal channels.

Rental Insurance Offered

Canada built only half the rental housing it required in 1947. Allowance of double depreciation for income tax purposes on this type of accommodation was insufficient inducement to augment its supply. Accordingly, the Central Mortgage & Housing Corporation has taken a new tack.

The Corporation — the Dominion Government agency in the shelter field — proposes to introduce rental insurance. In amendments to the National Housing Act it seeks to guarantee investors against loss on new rental housing and to encourage lending institutions to make generous loans on such projects.

To qualify for rental insurance, a project must contain eight or more dwelling units averaging at least 1½ bedrooms apiece. If the owner agrees to accept an approved rental for the first three years following completion, the Corporation will issue a contract for 85 per cent of the approved rental. The premium rate and policy period are yet to be established. What is guaranteed is an income large enough to pay carrying charges plus a 2 per cent return on the investment.

To show how the scheme would work, take the case of a 1½-bedroom suite in a new apartment house. On agreeing to accept a rental of $80 per month (maximum allowable on a fully serviced basis),

(*Continued on page 174*)

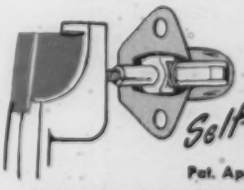
for the *Extra Something* that sets a home apart

Specify STANLEY *Cabinet Hardware!*

There's a style and finish to Stanley Cabinet Hardware that sets it apart as something special right from the start. Nationally known industrial designers styled it. Stanley engineers spent years of research and testing to perfect it.

The result: a line of cabinet hardware that is smoother working, longer lasting and easier to install . . . and by all odds the most beautiful.

Stanley Cabinet Hardware is a little extra touch that can add a great deal to the homes you build. Specify it. A descriptive folder showing the complete line gives full details. The Stanley Works, Cabinet Hardware Department, New Britain, Conn.



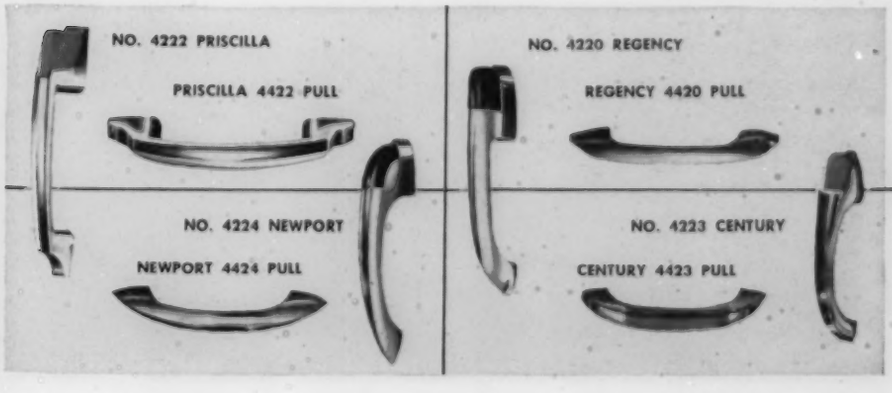
New! Self-adjusting latch—

Pat. Applied for

Unique new "trigger" latch has a friction sleeve which adapts itself automatically to doors from ¾ inch to 1⅛ inches thick. A Stanley "exclusive"!

New! Colorful Plastic Inserts—

Latch thumb pieces molded of sparkling, durable plastics—red or black—give unusual beauty to this modern hardware. Latch 4220 also furnished with chrome thumb piece.



STANLEY

Reg. U.S. Pat. Off.

HARDWARE · HAND TOOLS · ELECTRIC TOOLS

CONSTRUCTION COST INDEXES — Labor and Materials

United States average 1926—1929 = 100

Presented by Clyde Shute, manager, Statistical and Research Division, F. W. Dodge Corporation, from data compiled by E. H. Boeckh & Associates, Inc.

NEW YORK

Period	Residential Brick	Residential Frame	Apts., Hotels, Office Bldgs. Brick and Concr.	Commercial and Factory Buildings Brick and Concr.	Commercial and Factory Buildings Brick and Steel
1920	136.1	136.9	123.3	123.6	122.6
1925	121.5	122.8	111.4	113.3	110.3
1930	127.0	126.7	124.1	128.0	123.6
1935	93.8	91.3	104.7	108.5	105.5
1939	123.5	122.4	130.7	133.4	130.1
1940	126.3	125.1	132.2	135.1	131.4
1941	134.5	135.1	135.1	137.2	134.5
1942	139.1	140.7	137.9	139.3	137.1
1943	142.5	144.5	140.2	141.7	139.0
1944	153.1	154.3	149.6	152.6	149.6
1945	160.5	161.7	156.3	158.0	155.4
1946	181.8	182.4	177.2	179.0	174.8
Jan. 1948	238.8	242.7	225.1	224.6	220.0
Feb. 1948	239.2	243.2	225.2	224.8	220.1
Mar. 1948	244.8	246.4	233.9	237.0	229.9
Apr. 1948	248.6	250.7	235.9	238.5	232.1
	% increase over 1939				
Apr. 1948	**101.3**	**104.8**	**80.5**	**78.8**	**78.4**

ATLANTA

Period	Residential Brick	Residential Frame	Apts., Hotels, Office Bldgs. Brick and Concr.	Commercial and Factory Buildings Brick and Concr.	Commercial and Factory Buildings Brick and Steel
1920	122.8	122.9	108.6	109.8	105.7
1925	86.4	85.0	88.6	92.5	83.4
1930	82.1	80.9	84.5	86.1	83.6
1935	72.3	67.9	84.0	87.1	85.1
1939	86.3	83.1	95.1	97.4	94.7
1940	91.0	89.0	96.9	98.5	97.5
1941	97.5	96.1	99.9	101.4	100.8
1942	102.8	102.5	104.4	104.9	105.1
1943	109.2	109.8	108.5	108.1	108.7
1944	123.2	124.5	117.3	117.2	118.2
1945	132.1	133.9	123.2	122.8	123.3
1946	148.1	149.2	136.8	136.4	135.1
Jan. 1948	191.9	196.7	168.6	166.7	171.4
Feb. 1948	194.4	198.5	172.1	172.7	173.8
Mar. 1948	194.6	198.7	172.4	172.9	174.0
Apr. 1948	196.2	199.7	173.6	175.3	175.3
	% increase over 1939				
Apr. 1948	**127.3**	**140.3**	**82.5**	**80.0**	**85.1**

ST. LOUIS

Period	Residential Brick	Residential Frame	Apts., Hotels, Office Bldgs. Brick and Concr.	Commercial and Factory Buildings Brick and Concr.	Commercial and Factory Buildings Brick and Steel
1920	118.1	121.1	112.1	110.7	113.1
1925	118.6	118.4	116.3	118.1	114.4
1930	108.9	108.3	112.4	115.3	111.3
1935	95.1	90.1	104.1	108.3	105.4
1939	110.2	107.0	118.7	119.8	119.0
1940	112.6	110.1	119.3	120.3	119.4
1941	118.8	118.0	121.2	121.7	122.2
1942	124.5	123.3	126.9	128.6	126.9
1943	128.2	126.4	131.2	133.3	130.3
1944	138.4	138.4	135.7	136.7	136.6
1945	152.8	152.3	146.2	148.5	145.6
1946	167.1	167.4	159.1	161.1	158.1
Jan. 1948	220.6	224.0	198.1	200.9	199.6
Feb. 1948	221.4	224.8	199.4	202.3	200.4
Mar. 1948	223.6	227.5	200.2	202.9	201.3
Apr. 1948	223.8	227.5	200.6	203.0	201.5
	% increase over 1939				
Apr. 1948	**103.1**	**112.6**	**69.0**	**69.5**	**69.3**

SAN FRANCISCO

Period	Residential Brick	Residential Frame	Apts., Hotels, Office Bldgs. Brick and Concr.	Commercial and Factory Buildings Brick and Concr.	Commercial and Factory Buildings Brick and Steel
1920	108.8	107.5	115.2	115.1	122.1
1925	91.0	86.5	99.5	102.1	98.0
1930	90.8	86.8	100.4	104.9	100.4
1935	89.5	84.5	96.4	103.7	99.7
1939	105.6	99.3	117.4	121.9	116.5
1940	106.4	101.2	116.3	120.1	115.5
1941	116.3	112.9	120.5	123.4	124.3
1942	123.6	120.1	127.5	129.3	130.8
1943	131.3	127.7	133.2	136.6	136.3
1944	139.4	137.1	139.4	142.0	142.4
1945	146.2	144.3	144.5	146.8	147.9
1946	159.7	157.5	157.9	159.3	160.0
Jan. 1948	212.7	210.5	199.8	206.8	202.9
Feb. 1948	213.8	211.5	201.6	208.9	203.9
Mar. 1948	214.0	211.7	201.9	209.1	204.1
Apr. 1948	214.9	212.7	202.7	209.5	204.4
	% increase over 1939				
Apr. 1948	**103.5**	**114.2**	**72.7**	**71.9**	**75.5**

The index numbers shown are for combined material and labor costs. The indexes for each separate type of construction relate to the United States average for 1926–29 for that particular type — considered 100.

Cost comparisons, as percentage differences for any particular type of construction, are possible between localities, or periods of time within the same city, by dividing the difference between the two index numbers by one of them; i.e.:

index for city A = 110
index for city B = 95

(both indexes must be for the same type of construction).

Then: costs in A are approximately 16 per cent higher than in B.

$$\frac{110-95}{95} = 0.158$$

Conversely: costs in B are approximately 14 per cent lower than in A.

$$\frac{110-95}{110} = 0.136$$

Cost comparisons cannot be made between different types of construction because the index numbers for each type relate to a different U. S. average for 1926–29.

Material prices and wage rates used in the current indexes make no allowance for payments in excess of published list prices, thus indexes reflect minimum costs and not necessarily actual costs.

These index numbers will appear whenever changes are significant.

History will be made under a roof of ANACONDA COPPER

The Philadelphia Municipal Auditorium, erected in 1930, has a seating capacity of more than 13,000 in the main hall.

PARTY DELEGATES assembled in the huge Philadelphia Municipal Auditorium will select their candidates for the nation's highest office. Hon. Bernard A. Samuel, Mayor of Philadelphia, will welcome the delegates to the first of the national conventions which opens here on June 21st.

This spring more than 100,000 pounds of Anaconda Copper were used in reroofing the barrel vault type roof which covers this vast amphitheatre. The proven durability of copper, its fabricating qualities, corrosion resistance, appearance and low maintenance costs, combined to give this time-tested metal preference over all other materials considered.

Design and supervision of this tremendous roofing job were in the hands of Joseph A. Roletter, Director of City Architecture, and Thomas Buckley, Director of Public Works. The J. Edward Linck Sheet Metal Works of Philadelphia and Washington were the contractors.

46509

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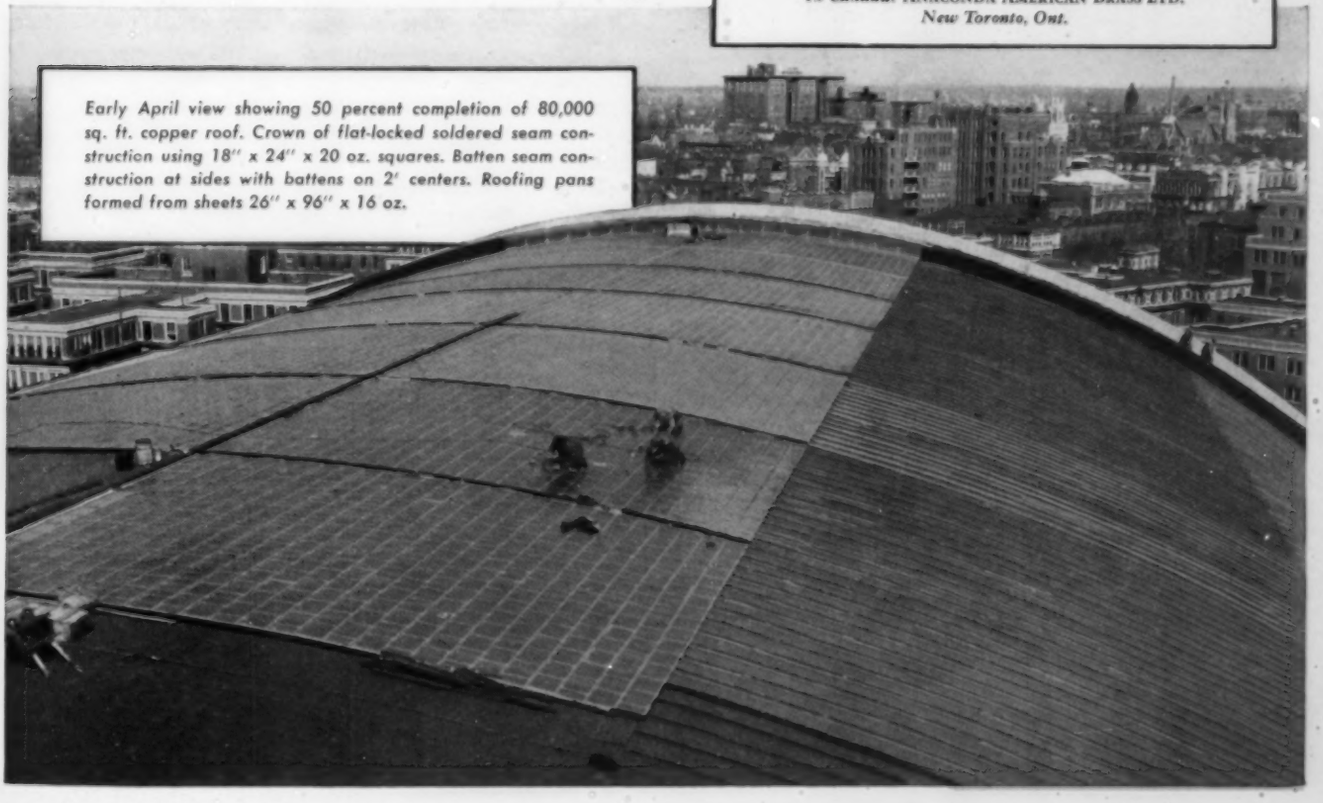


Early April view showing 50 percent completion of 80,000 sq. ft. copper roof. Crown of flat-locked soldered seam construction using 18" x 24" x 20 oz. squares. Batten seam construction at sides with battens on 2' centers. Roofing pans formed from sheets 26" x 96" x 16 oz.

REQUIRED READING

PRESTIDIGITATION

New Houses from Old: A Guide to the Planning and Practice of House Remodeling. By R. R. Hawkins and C. H. Abbe. Whittlesey House (330 W. 42nd St., New York 18), 1948. 6 by 9 in. x + 558 pp., illus. $4.95.

For once here is a volume which amply lives up to its jacket blurb. Described thereon by B. Kenneth Johnstone, head of the Carnegie Institute of Technology Department of Architecture, as "an amazing document . . . an encyclopedia of home building . . . the book to end all books in this field," it is close to being exactly that. And, as a matter of fact, that is just what the authors meant it to be.

Messrs. Hawkins and Abbe have written primarily for actual and potential home owners, secondarily for landlords and builders. They have, therefore, kept their text as non-technical as possible, but they have nonetheless gone quite thoroughly into the "anatomy of houses." Separate chapters deal with masonry work, foundations, house framing, roofs, floors, painting and papering, insulation, heating, plumbing, etc.

All of this, of course, is background to the chapters on remodeling. Illustrated with before-and-after views and plans of actual remodelings, this section is the one most likely to be of interest to the architect. It includes a concise chapter on "How to Judge a House for Remodeling," and a number of simple but sound schemes for enlarging, modernizing, and so on. Here, too, is a handy spread of diagrams indicating the floor area required by typical household furniture and equipment.

This is a book which an architect might well like to have on his shelf for the client whose ideas are either nebulous or impractical — or both.

ARCHITECTURE IN 1947

The New International 1948 Year Book. Henry E. Vizetelly, Editor-in-Chief. Funk & Wagnalls Company (153 E. 24th Street, New York 10, N. Y.) 1948. 7 by 10 in. xvi + 684 pp., illus. $10.00.

The New International 1948 Year Book is, as the title might not imply, a coverage of 1947 in the form of a detailed, documentary account of events, discoveries, situations and topics of major *and* minor importance of that year. There is practically no subject, idea, institution, place or thing that has not been reviewed in its relation to 1947.

Of chief interest here is the summary of 1947 trends and developments in architecture, lucidly and comprehensively traced through their widely divergent 1947 paths by Douglas Haskell, Senior Associate Editor of ARCHITECTURAL RECORD. The article is subdivided into Residential, Prefabrication, Commercial, Public Buildings, City Planning, and Other Countries. "Other Countries" here means other than the United States since most of the preceding topic headings deal with the United States architectural scene during 1947. A remark under City Planning illustrates the fact that in that realm there is much talk and little do: "Actual city planning achievement was virtually nil, under the prevailing temper of land-grabbing and quick profitable parcel sales." A fine tribute is paid to Le Corbusier-influenced contemporary Brazilian architecture and also to the work being done by its Latin neighbor Argentina. Some of the architectural activity in Great Britain, France and the U.S.S.R. is also discussed.

ENGLISH VISTA

Vision of England: (1) Derbyshire, by Nellie Kirkham; (2) Sussex, by Reginald Turnor; (3) Cornwall, by Peggy Pollard. Paul Elek Publishers Ltd. (38, Hatton Garden, London, E.C.1, Eng.), 1947–48. 7¼ by 9¼ in. 48 pp. each, plus plates and maps. 9s 6d each.

In these three small books, the latest additions to the "Vision of England" series, the authors have captured atmosphere of a very real sort in their rambling explorations of the byways, villages, valleys and moors for which rural England is justly famous.

The book devoted to Derbyshire contains many interesting references to local architecture and landmarks: "Kedleston Hall is an outstanding example of the work of the Adam brothers and ranks high among the mansions of its type, but Derbyshire is perhaps more noted for its many smaller, more intimate houses, particularly those dating from Elizabethan and Jacobean days, whose charm is often enhanced by the sudden surprise of their appearance." From the Sussex book also come interesting architectural commentaries. In reference to the town of Lewes: "Here is the top of that section of the High Street known as School Hill, which is compact of fine, restrained, gracious buildings. School Hill House has great scale and dignity, and all the way down to the river there are many excellent variations on the Georgian theme: here a pair of front doors under one entablature; there an elevation based on the bay-window motive. Some are of brick and some of stone; colour and texture and scale all vary, but never too violently; all this architecture speaks the same language with slightly different accents, none of them jarring."

Each of the three books follows the same pattern of describing the character of its county in fine detail. Never assuming the attitude of a guide book, they lead the reader through crooked lanes and streets, by the rivers and streams, and carry him from mountainside to quayside while unfolding their narrative of native customs, historical incidents and folklore. These three books should prove interesting especially to those in whom they will arouse pleasant memories of past visits and associations.

INTERIORS TO FIT

Anatomy For Interior Designers. By Francis de N. Schroeder. Illustrations by Nino Repetto, Henry Stahlhut and Mario Carreño. Whitney Publications, Inc. (11 E. 44th St., New York 17), 9¼ by 10¼ in. 70 pp., illus. $3.50.

Recently brought out by Whitney Publications, Inc., publishers of *Interiors*, ANATOMY FOR INTERIOR DESIGNERS is a compilation and enlargement of the articles that appeared originally as a series in *Interiors*. It is intended to be a readable and handy reference for interior designers, and is not, as it might appear at first glance, simply a restatement of sections of *Graphic Standards*, but instead, devotes its text only to that portion of interior design which is related to the care and comfort of the human body.

The book is largely diagrammatical, but the diagrams are enhanced by amusing Nino Repetto illustrations, and witty running commentaries. The basic theme is that the proportions of the human body are the basis of all design, and this theme is developed in a series of separate chapters: "Basic Measurements," which describes with diagrams the capabilities and limitations of the human anatomy; and chapters on individual rooms in the office and home.

Part 2 is entitled "How To Talk To A Client." In order to be of any real value to designers, such a topic would require lengthy treatment with countless variations, since no two clients are alike, and no two designers either. Part 2 in this case is more apt to be a rather diverting addendum to the factual contents of Part 1. ANATOMY FOR INTERIOR DESIGNERS is a light, but handy reference on a specialized phase of interior design.

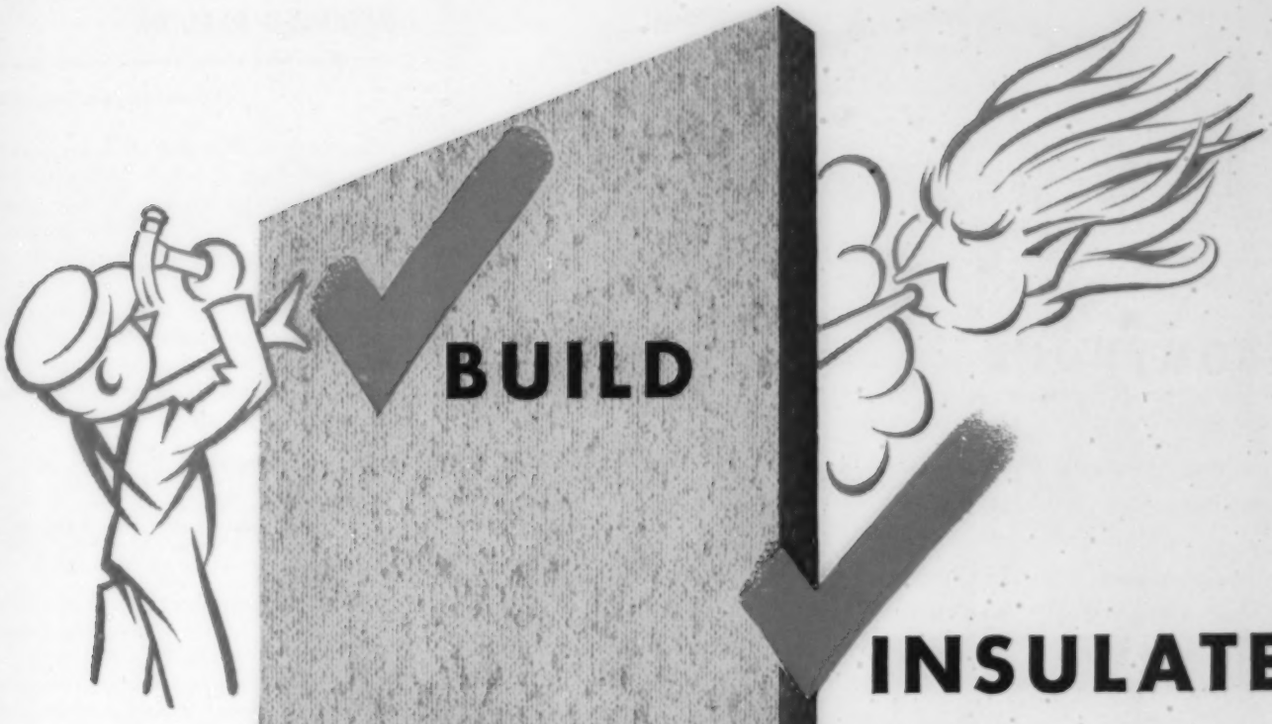
TECHNICAL BOOKS

STRESS ANALYSIS

Stress Analysis and Design of Elementary Structures. By James H. Cissel. 2nd Ed. John Wiley & Sons, Inc. (440 Fourth Ave., New York 16), 1948. 6 by 9 in. xii + 420 pp., illus. $5.00.

In this second edition of Professor Cissel's book, Part I of the first edition has been retained intact except for a revision of Chapter 2 on live loads that

(*Continued on page 30*)



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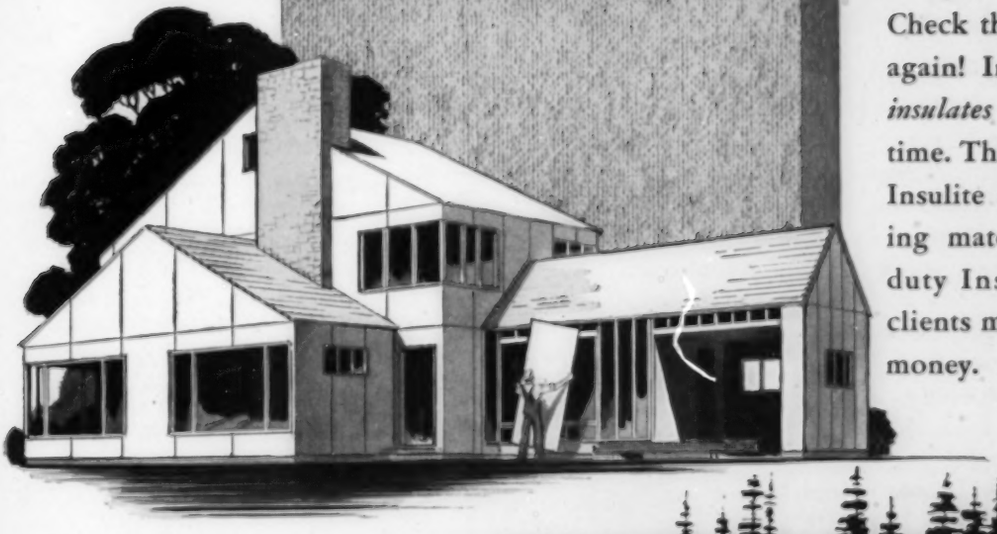

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Refer to Sweet's File, Architectural Section 10a/9

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Oak Floors RESPOND
TO CHANGING STYLE TRENDS

With beauty, durability and long-time economy as obvious advantages, an important quality of oak flooring is lately becoming more and more appreciated—that is, adaptability to meet changing style trends.

Actually oak floors welcome new ideas to make homes more attractive and more livable. Changes in furnishings, wallpaper, paint or rugs blend harmoniously into the basic beauty of natural oak grain and texture.

Oak floors prove their superiority as a base for wall-to-wall carpets too. Carpets lie smooth and firm. They look better and clean more easily. At any time, when carpets become too worn for further service, oak floors can be depended upon for their original, lasting beauty.

For any season, for any style, oak floors provide the basis for lasting charm and hospitality.

ASK FOR ARCHITECTS' DATA BOOK—*which gives quick and usable information for specifying, laying, finishing and maintaining oak floors. Available from your local oak flooring dealers or from the National Oak Flooring Manufacturers' Association, 814 Sterick Building, Memphis, Tenn.*

OAK FLOORS
BEAUTY • DURABILITY
ADAPTABILITY • ECONOMY

REQUIRED READING

(*Continued from page 30*)

brings it up to date with the most recent standards. Part II, which deals with the design of simple structures, has been completely revised also for the purpose of bringing it abreast with the latest specifications. An entirely new chapter devoted to light-gage steel construction has been incorporated into the book. To enhance the classroom value of the book, data for problems have been added at the end of each chapter.

LIMIT DESIGN

Theory Of Limit Design. By John A. Van Den Broek. John Wiley and Sons, Inc. (440 Fourth Ave., New York 16), 1948. 5½ by 8½. viii + 144 pp., illus. $3.50.

By another member of the University of Michigan faculty *Theory of Limit Design* also is essentially a textbook. In it the author states via text, formulae and data the fundamental principles of limit design. In the words of Professor Van Den Broek: "The theory of limit design presupposes ductile or semiductile stress distribution. In it, the emphasis is shifted from permissible safe stress to permissible safe deformations. This theory is the subject of this book."

The book contains six chapters which comprise Physical Properties Of Metals, Limit Design Of Simple Structures, Limit Design Of Redundant Beams, Limit Design Of Trusses, Connection Details, and Evaluation Of Limit Design. The many diagrams, etc., used throughout the book graphically illustrate or verify the terms and principles discussed in the text.

ABBREVIATIONS

Scientific and Technical Abbreviations, Signs and Symbols. By O. T. Zimmerman and Irvin Lavine. Industrial Research Service (Dover, N. H.), 1948. 5¾ by 8¼ in. xii + 476 pp., illus. $7.50.

This book is one of the most comprehensive compilations yet published of abbreviations, signs and symbols used in almost every field. Not only is such a reference valuable directly to architects, engineers and builders in their own fields, but it also contains much information which will be of more general interest to them.

Some of the major groupings consist of signs and symbols used in engineering, mathematics, chemistry, thermodynamics, acoustics, aeronautics, radio, electronics, hydrography, topography, railways, astronomy, mechanical drawing, materials of construction, communications, humidity, and radiation. SCIENTIFIC AND TECHNICAL ABBREVIATIONS, SIGNS AND SYMBOLS is highly recommended since it is almost unprecedented as a work of its kind.

ARCHITECTURAL

RECORD

ARCHITECTS ANONYMOUS

If public recognition were the chief, or even a major, source of soul-satisfaction to the average architect his ego would starve to death. The fact is that the public neither knows nor cares who designs its buildings and the average man has no idea who is or was responsible for the convenience, safety, and beauty (if any) of his house, office, theater, or church. There are exceptions that prove the rule, individuals or firms that appreciate the publicity value of a striking, radical, or weird design and can (and do) point with pride to the name of the great if eccentric innovator. But by and large architecture is, and probably will continue to be, an anonymous profession.

Time was, and not so long ago, that buildings bore the name of the architect or firm on the cornerstones, a custom it would be well to revive and foster. It might serve to remind the passerby that there is such a profession as architecture. And it is to be hoped that he would be able to recognize the superiority of the architect-signed building.

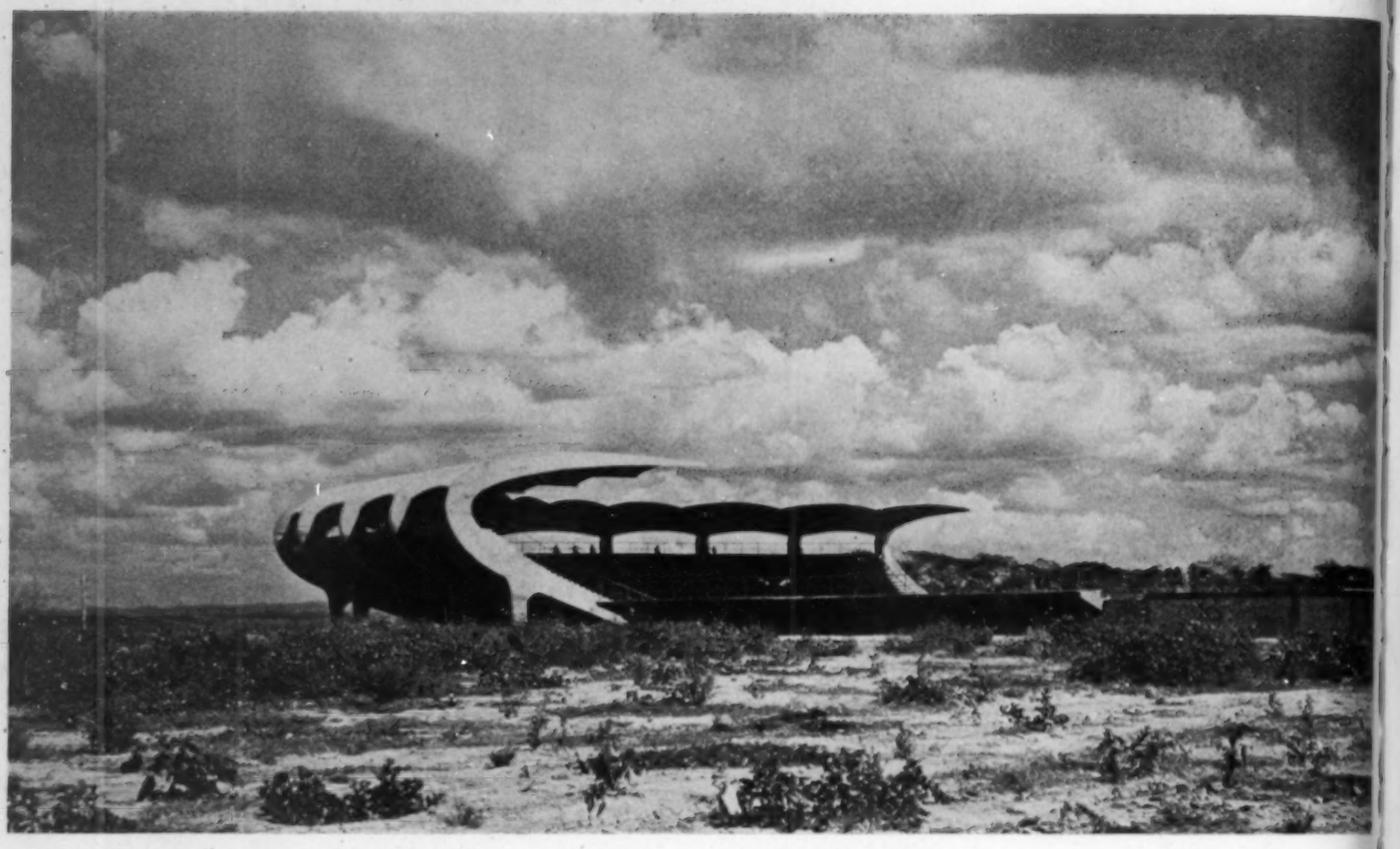
When a building project is first announced in the newspapers one learns much about the owners, promoters, mortgagors and realtors involved (including their names), but the descriptive caption of the accompanying perspective merely winds up with ". . . from the architects' sketch." Architects anonymous again! This can be corrected by local architectural organizations — and by a copyright notice on the drawing. Two dollars for a copyright. Magazines are usually glad to give credit where credit is due — to the architect — and thus render a real service to the profession and to the public.

There is another aspect of anonymity, too. Building projects are labeled, if at all, with the name of the firm responsible. The name of the architectural designer within the firm, whether partner or employee is seldom known outside the organization. This is especially true in the larger architectural firms and is probably inevitable, for the firm is legally, morally, and esthetically responsible for the designs. So the designer must remain anonymous until he becomes a partner or hangs out his own shingle.

But there is another way out, or up — via competitions. Through them the designer may gain professional recognition for his personal ability, see his own name on his own design. And even if he fails to win first place he has the satisfaction of producing "on his own." The architectural designer's greatest compensation is his joy in working out his own creations, and the satisfaction of a job well done — whether the world knows it or not. Yet a little more recognition by others would help. One doesn't want to be an architect anonymous always and a competition may well be the stepping stone to both fame and fortune. Let's have more of them!

Kenneth K. Stowell

EDITOR



Photos by Foto Industrial

PITCHING A BOLD CURVE IN CONCRETE

Baseball Stadium at Cartagena, Colombia, South America

So BOLD is the concept of this stadium, held by frames in the shape of a capital C or a standing sickle, that the editors obtained the approving opinion of New York engineers to anticipate possible objections.

The South American architects declare that the North American tendency to find such structures "impractical" or "not quite safe" arises in reality from an Anglo-Saxon timidity in the face of bold plastic invention. Quite clearly the architects and engineers who devised this stadium were enjoying a game themselves.

The opportunity came in 1946 when Cartagena was chosen as host city to the Ninth Amateur Baseball World Series. By February of 1947 plans had not yet been started, and the Department of National Buildings of the Ministry of Public Works took over. This would be called a "bureaucratic body" here; but it proceeded with exemplary speed. It employed Colombian architects trained at Harvard and Yale, and Colombian engineers not trained there; and by May 10 construction had begun. The department had the big advantage of being its own authority on codes. By the end of 160 days ball was being played before 18,000 spectators.

ARCHITECTS

Gabriel Solano
Jorge Gaitán
Alvaro Ortega
Edgar Burbano

STRUCTURAL ENGINEER

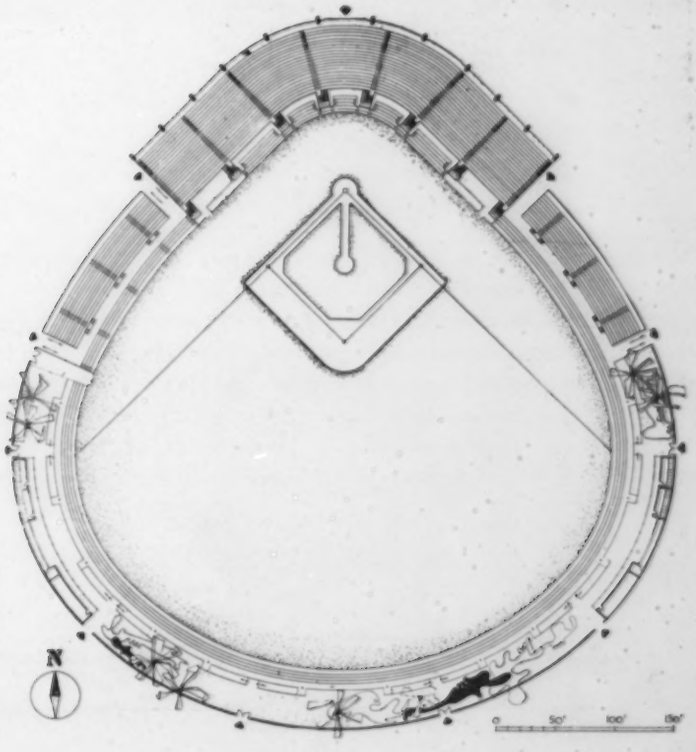
Guillermo González

CONSTRUCTING ENGINEERS

Alfonso Mejía
Mario Barahona
Julio Noel Montenegro

COORDINATOR

Carlos Santacruz



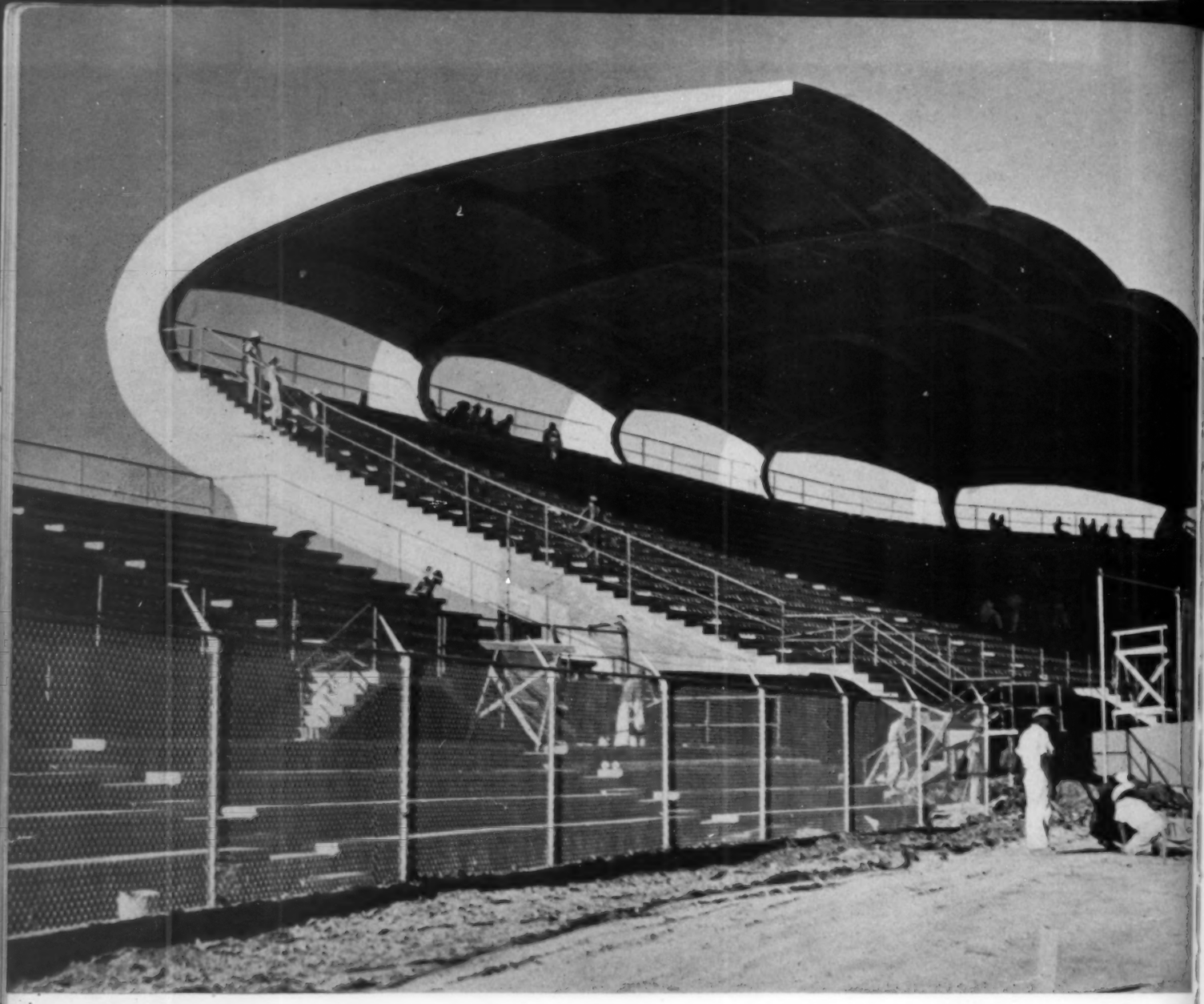
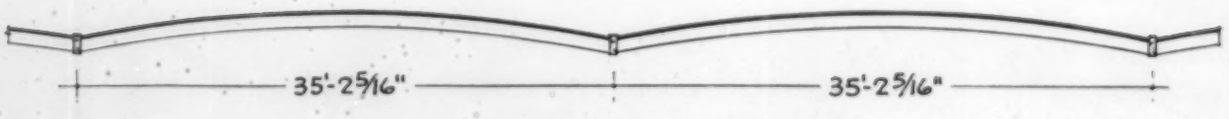
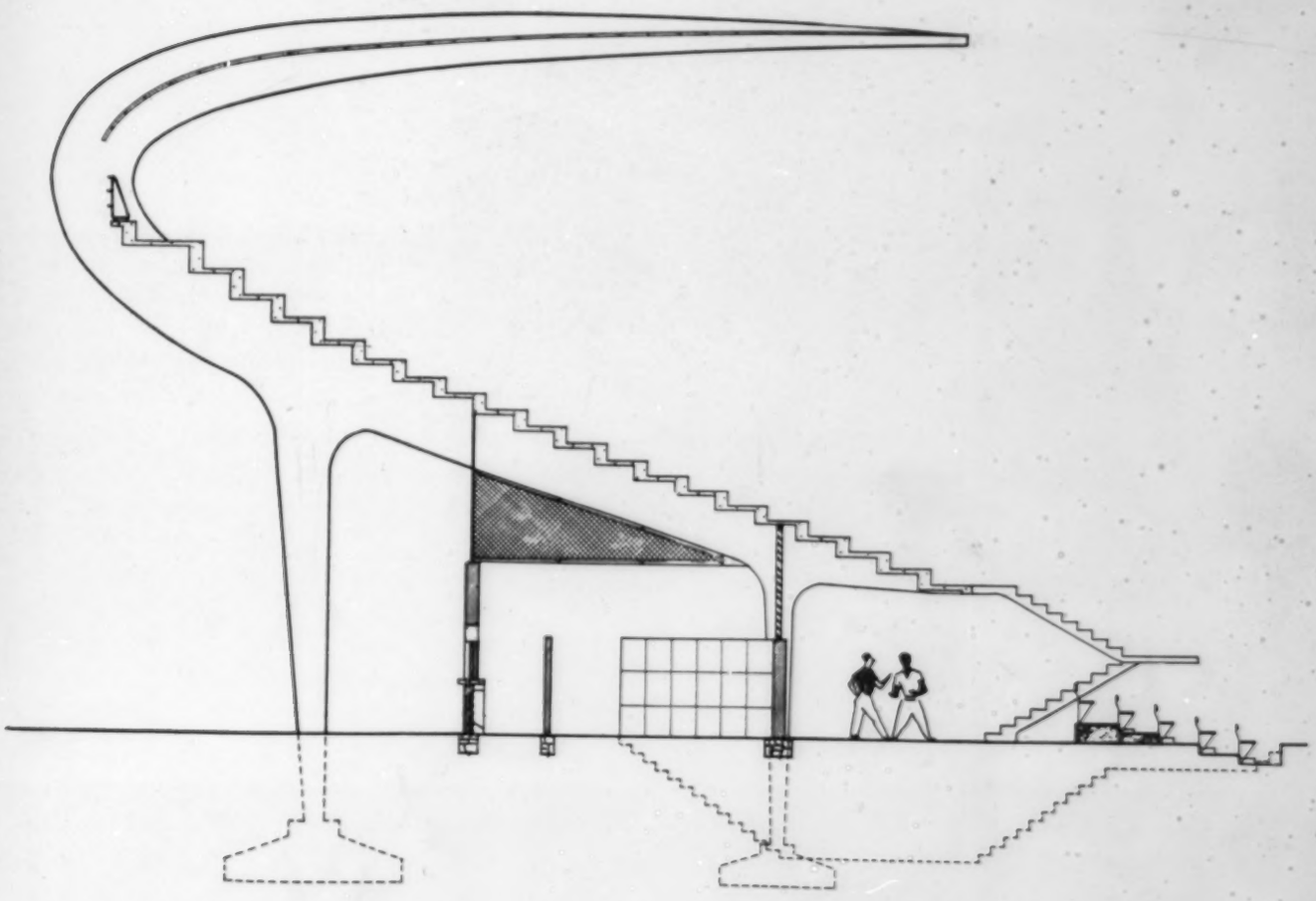


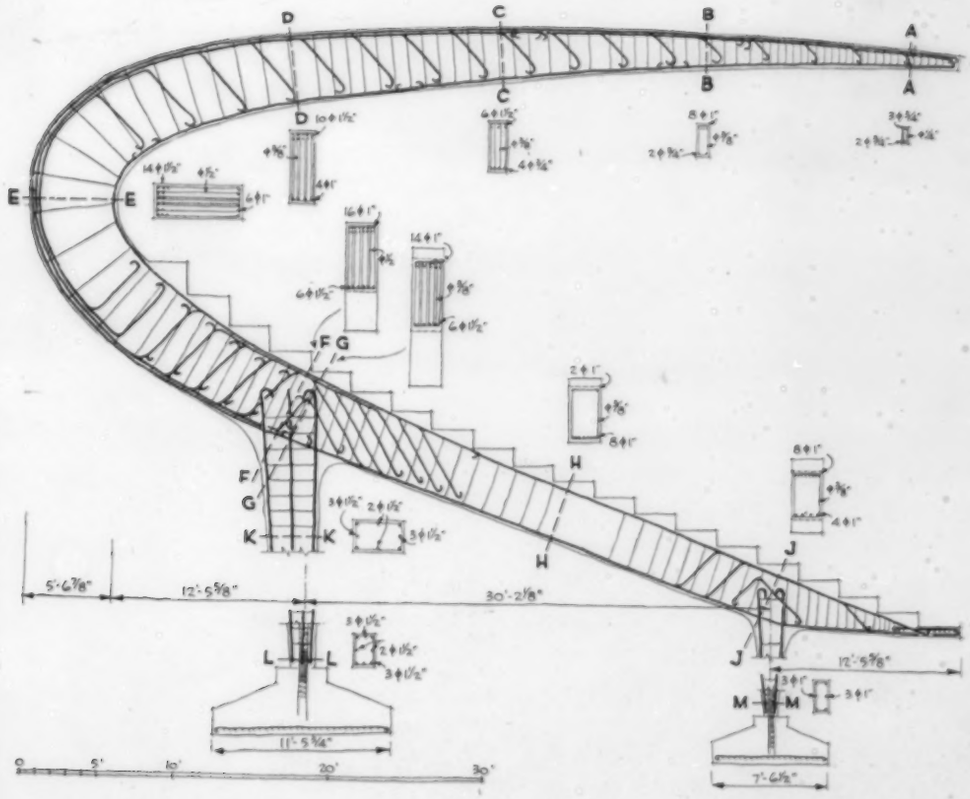
Photo by Foto Industrial

The framing system for the Colombian stadium is seen on the opposite page. Seats form a series of Z-beams (upper drawing) spanning the 35 ft. (10.75 meters) between vertical supports. These curved vertical frames of parabolic section are each supported on two columns. The canopy is a membrane of reinforced concrete just over 1½ in. thick (4 cm.) formed in curved panels between arched ribs. Concrete was preferred over steel because of the proximity to the Caribbean Sea and the action of salt air.

(Fully detailed drawings showing the dimensions of longitudinal reinforcing in the vertical frames will be supplied to those requesting them of ARCHITECTURAL RECORD)



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5'-6 7/8"
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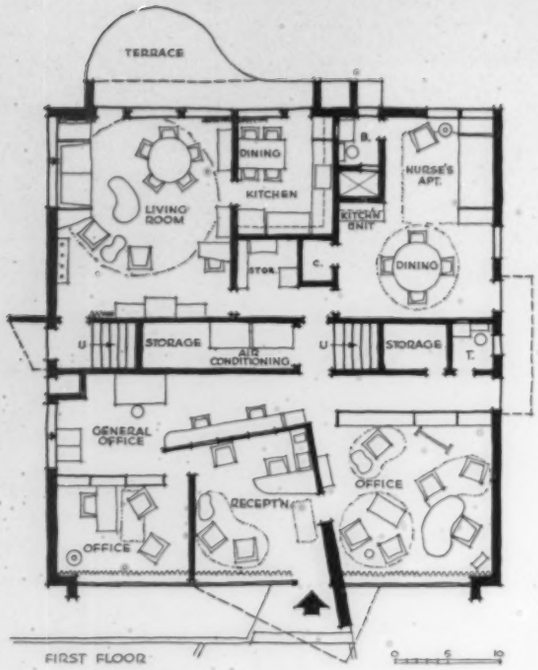
30'-2 1/8"
11'-5 3/4"
7'-6 1/2"
0
5'
10'
20'
30'

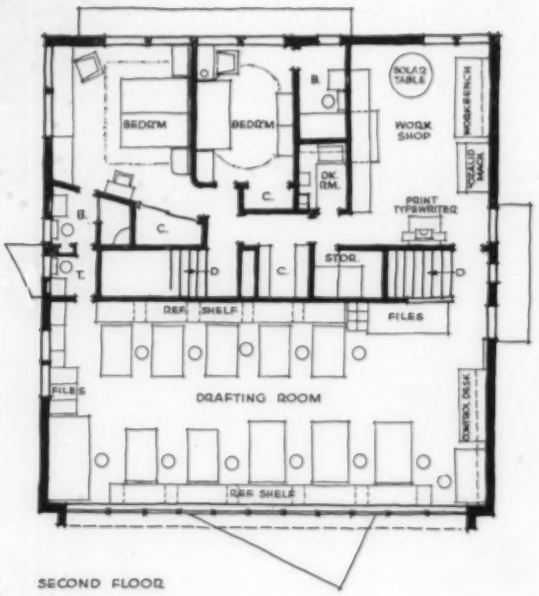
Photos by Foto Industrial

Here may be seen the powerful reinforcing bars which take the tensional stress of C-curved vertical frames. Note also the preparation for coffering the thin canopy membrane, which is seen in view below

Rodriguez Photo

At the rear of the magnificently cantilevered canopy, and just above the top seats, it was necessary to leave large openings for the free passage of wind. This also operates to create a pleasant air movement under normal conditions in the hot climate of Colombia. Due to the poor soil conditions and the wide overhang, concrete of a strength of 3000 psi was used in the canopy membrane and 2000 psi in the footings. Construction involved moving some 69,000 yards of earth, providing 43,000 sq. ft. of paved access road surface and 54,000 sq. ft. of parking area, and finally placing 6550 linear feet of drainage tile





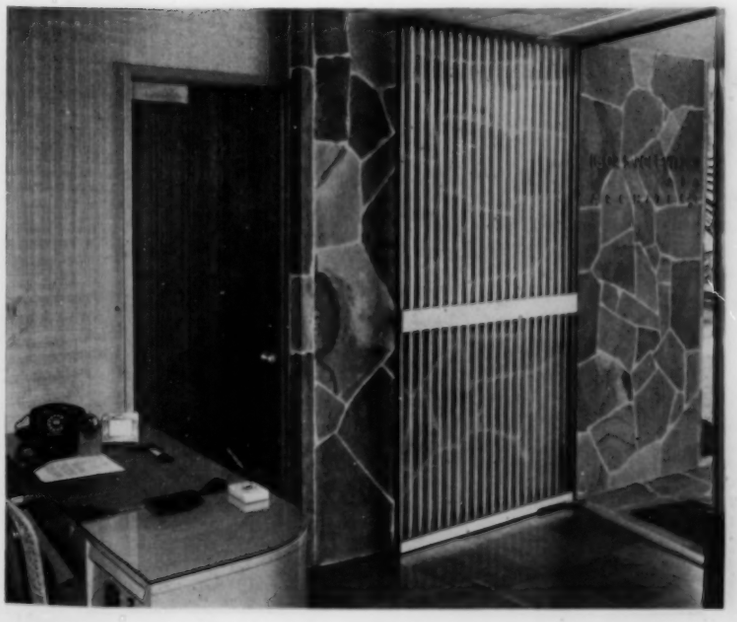
ARCHITECT'S OFFICE AND HOME COMBINED

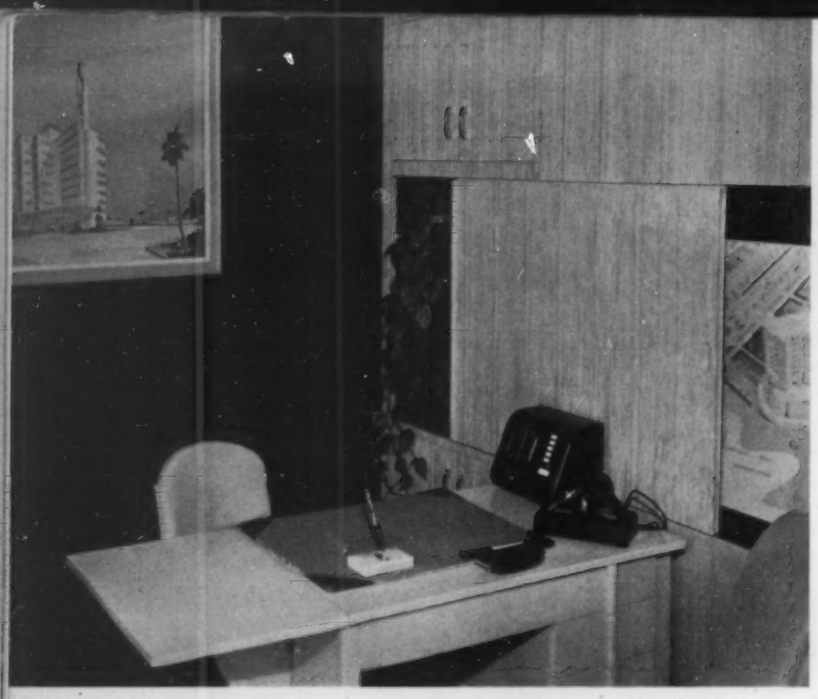
Igor B. Polevitzky, Architect — *Miami, Florida*

Opposite: the plans show the scheme of integration-plus-segregation. Opposite, below: the ground floor offices are completely shielded from the street by corrugated glass panels, illuminated by a recessed cove light which also provides general illumination. Right: Mr. Polevitzky's private office is furnished in natural striated plywood. The floor is of cork squares. Below: the entrance and reception room showing sound-proof ceiling, washable fabric on walls, asphalt tile floors.

Joseph B. Brignolo Photos

CONVENIENCE and economy, plus the current housing shortage, influenced the decision to build the office and home under one roof in the expanding downtown area of Miami. Economy, both of first cost and in maintenance, indicated a plan almost square, but bisected by a 6-ft. stair. This assures functional segregation and privacy between the office and the residential portion of the building. The office space is flexible enough to provide facilities for a staff of from three to twenty, depending upon the amount of work in progress. North light was desirable for office and drafting areas, leaving the southern exposure for the living quarters. The building is constructed of concrete and concrete-block exterior walls, bar joist and concrete floor slab and roof construction, with a light-weight steel frame for the stair system forming the interior joist support. There are two separate air conditioning systems, one for the office area, one for the residential. In the workshop the air conditioning operates in connection with either system so that it can be used with the office in the daytime, and with the house (as a hobby room) at night. The workshop is an essential part of the establishment as it is used for photographic work, solar studies, model building, hobbies, etc. — a convenient and useful space which is usually lacking in the average office. It is compact, and well equipped (see photo next page).

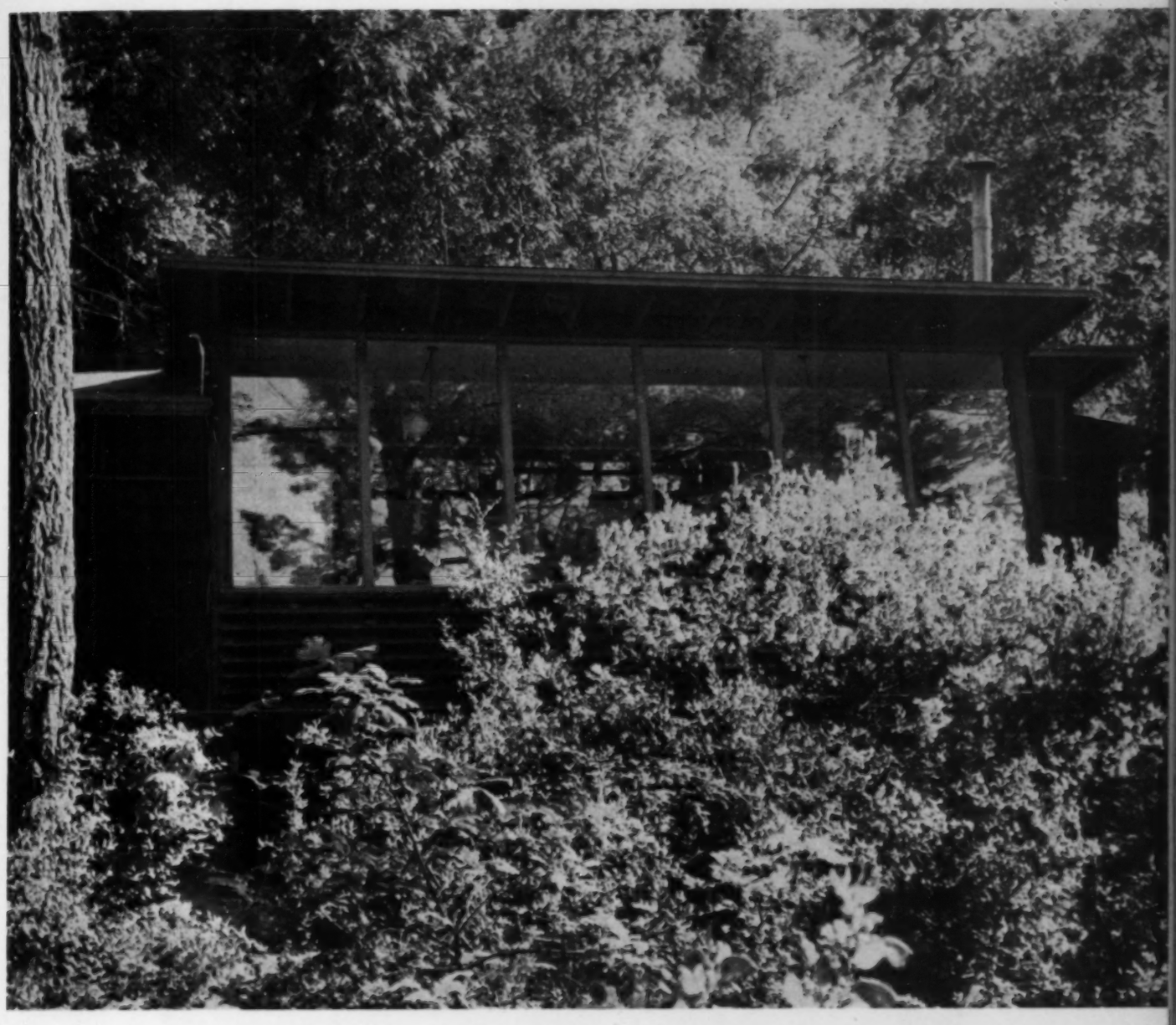




A corner of the conference room. The cabinet wall is of striated plywood, arranged with sliding panels, and the dark wall serves as a background to emphasize presentation drawings. Floors throughout are of asphalt tile except in Mr. Polevitzky's private office and the bathrooms

Joseph B. Brignolo Photos

The workshop is well equipped for many necessary and desirable activities, from reproducing drawings, tracings and specifications to accurate studies of effects of sunlight and shadow on scale models. Below: the drafting room looking toward the flat topped control desk under which are the flat files for drawings of all work in progress, with a telephone close at hand

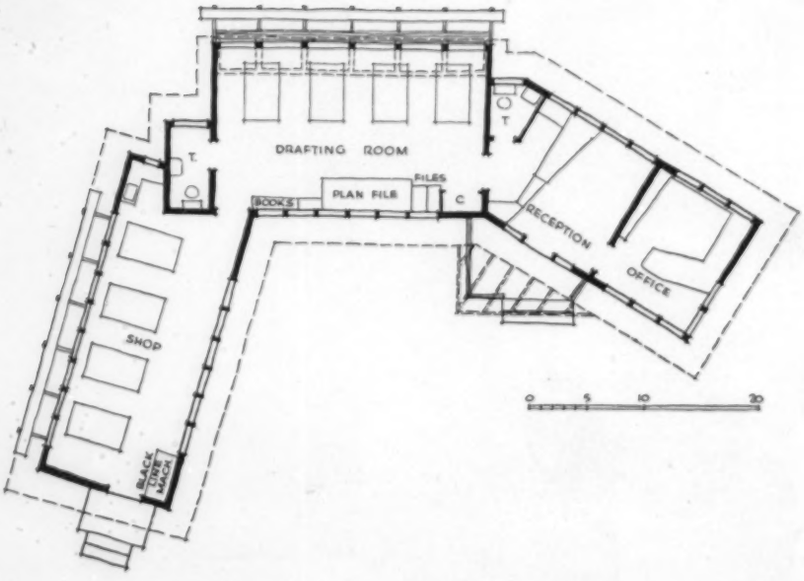


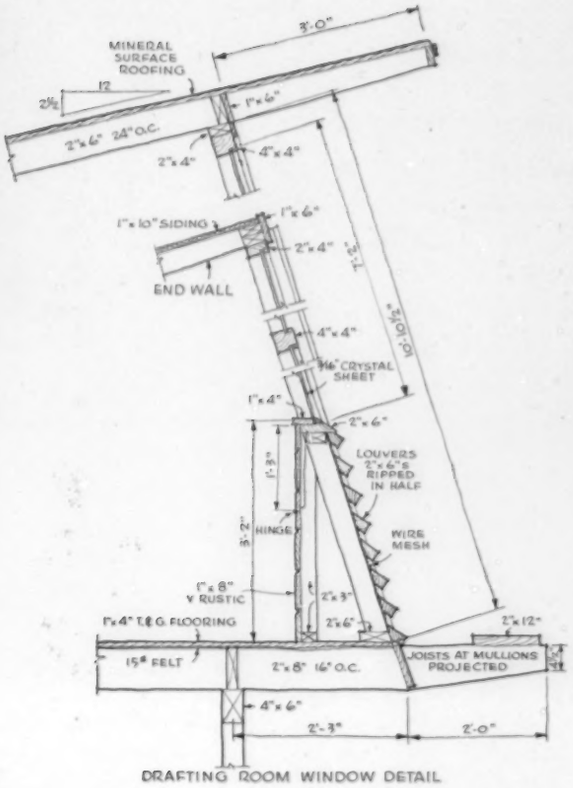
ARCHITECT'S OFFICE IN A RURAL SETTING

J. Clarence Felciano, Architect, Santa Rosa, California

BELIEVING, at least to a certain extent, in the adage which has it that "better mousetraps" produce beaten paths to even a distant door, California architect Felciano moved his office into the hills some two miles from his former location in the center of town. He had a number of valid reasons for doing so: 75 per cent of his clients were from outside Santa Rosa, some of them from as much as 260 miles north and 100 miles south of the city; he could design his offices to suit his needs, and expand them as might be required; owning rather than renting would stabilize his overhead; the atmosphere of a wooded country area would be more conducive to good work than that of a congested and noisy midtown location; the parking problem in downtown Santa Rosa was already so acute that a client would spend at least as much time finding a place to park in that vicinity as he would driving the additional distance to the new location. The move has proved a wise one — clients, office personnel, even building material salesmen, are unanimously enthusiastic.

Above, left: workshop is well equipped for rapid and accurate model making, and can double as a drafting room during peak activities. For such a peak period the temporary flexible lighting device was improvised. Above, right: a portion of the drafting room, showing the flood of excellent north light available in spite of the lush verdure of the surrounding woods. Below: the exterior is Redwood siding, stained a soft brown; trim is terra cotta



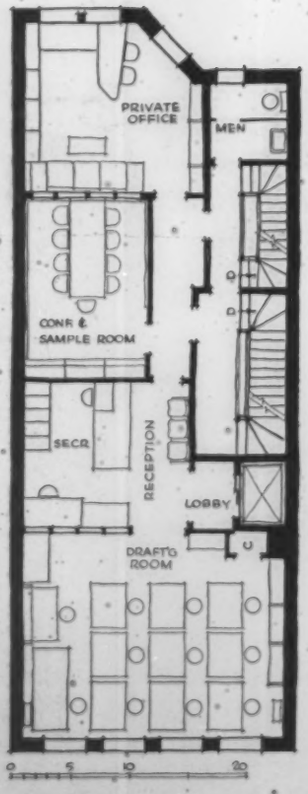


DRAFTING ROOM WINDOW DETAIL

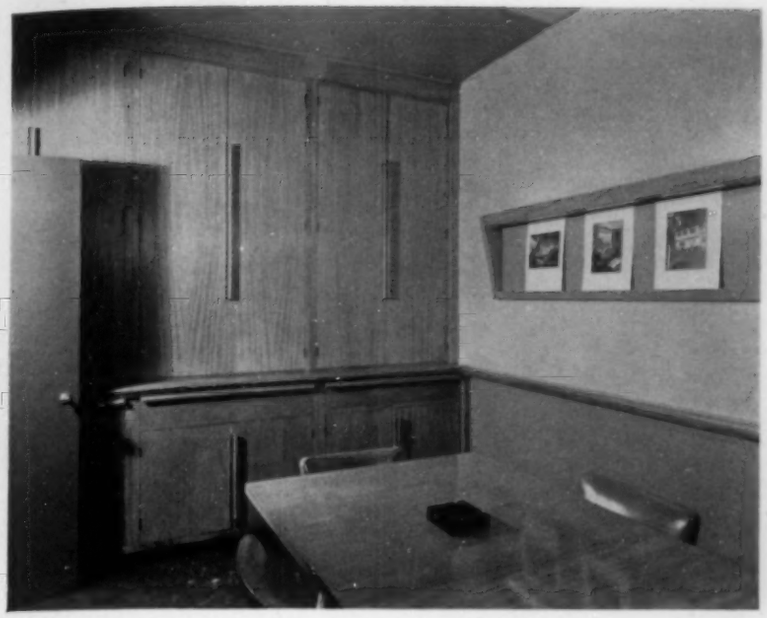
Left: a section through the studio window of the drafting room, showing the protecting overhang, the sloping windows, and the control of louvered ventilation. (Photo on page 97 shows drafting room window from the outside.) Above: a corner of Mr. Felciano's own office. Below: the reception room as seen from behind the receptionist's desk

ARCHITECT'S OFFICE IN LIMITED SPACE

David J. Abrahams & Associates, Architects, Boston, Massachusetts



Haskell Photos



Left and below: the conference room

In contrast to the two especially designed offices shown on the preceding pages, here is an architect's suite created by skillful remodeling in the heart of Boston. Despite limited space and legal requirements dictating twin stairs, the offices are both efficient and attractive.

The reception room, entered directly from the elevator lobby, is in a controlling central position. Artificially lighted except for such daylight as is borrowed from the drafting room, it is brightened by a yellow ceiling; desk and counter tops, doors and chair wall in terra cotta. Counter front, secretary's desk, and dados are light gray. The mural-like building outlines painted over the gray working-drawing background are in terra cotta, gray, yellow and green.

Drafting room walls are painted a light "eye-rest" green, with slightly darker trim. The conference room is finished in sand color relieved by one wall and a dado of gray-green. Cabinets and trim are bleached mahogany, chairs a light coffee-color leather.

Mr. Abrahams' private office (right and top, opposite page) is finished and furnished in bleached mahogany. The asphalt tile floor is yellow ochre with a desk rectangle of reddish brown. Two walls are papered in brown and the window walls are light green. The coral leather upholstery is recalled in the coral and brown figuring of the light beige drapery. Bookcase recesses are also coral, chair webbing is gray-green

Opposite: the reception room

MODULAR LIBRARY UNDER CONSTRUCTION

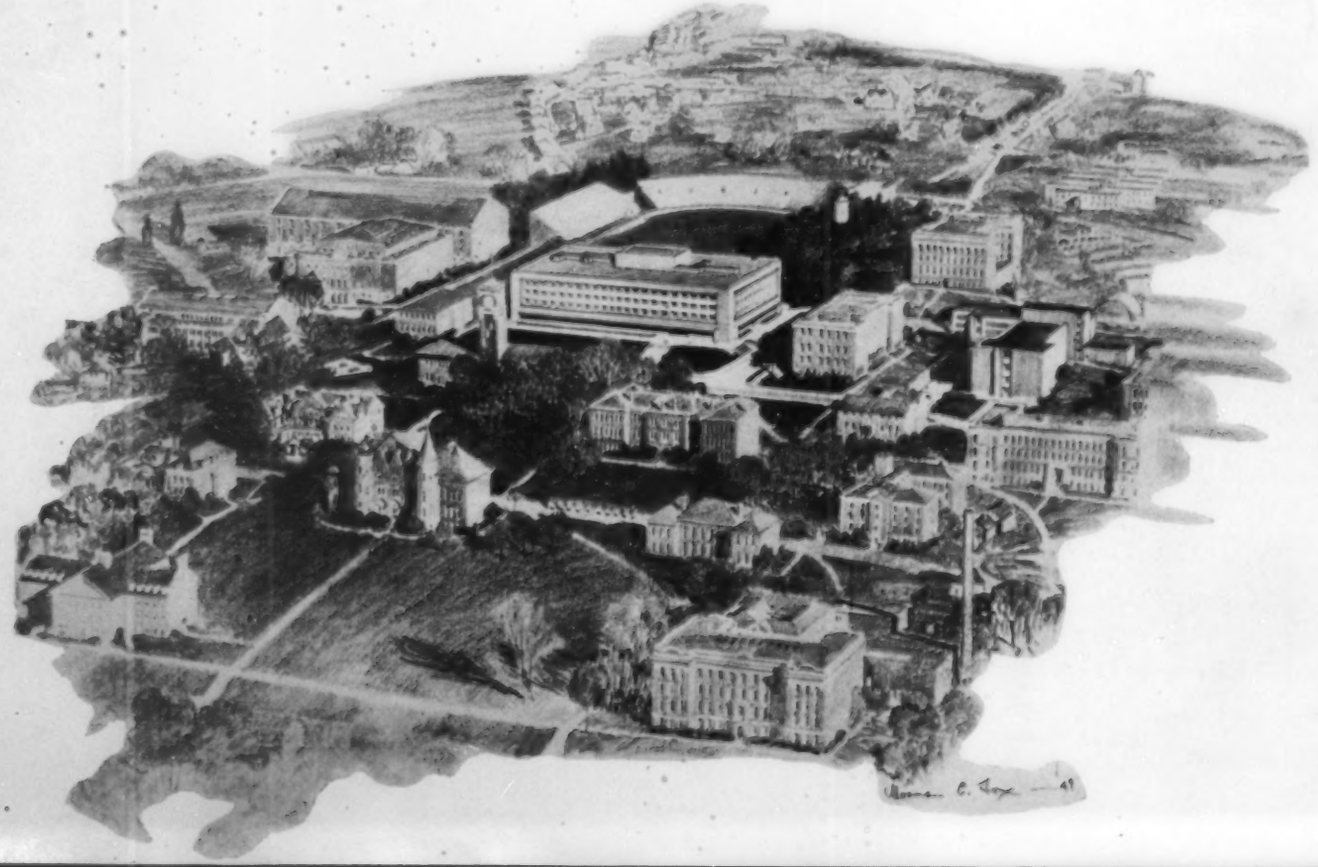
The State College of Washington, Pullman, Washington

John W. Maloney, Architect

UNDER construction since March, scheduled for completion late 1950, this 1,200,000-volume library, of 2½ million gross cubic feet, 208,000 square feet, will provide work space for 2,200 readers, partly undergraduates, partly advanced students using divisional libraries. One of 14 institutions collaborating on the "Cooperative Committee on College Library Building Plans," the State College of Washington will pay a basic figure of $2,382,390, or $2,620,197 with alternates, at a rate between 98 cents and $1.08 per cubic foot, for what is reported to be the first important "modular library" under construction. Since the budget was set at $2,500,000, the estimate was close. General construction will account for 74.7 per cent; mechanical equipment, 14.8 per cent; electrical, 10.5 per cent of the total (6.9 per cent representing lighting fixtures) — all this exclusive of architects' fees.

Special features of the library will be its profusion of seminar rooms and faculty research rooms, its closed study carrels, the modular flexibility of its stacks, the vacuum cleaning system, and planned provision for audio-visual education of elaborate character.

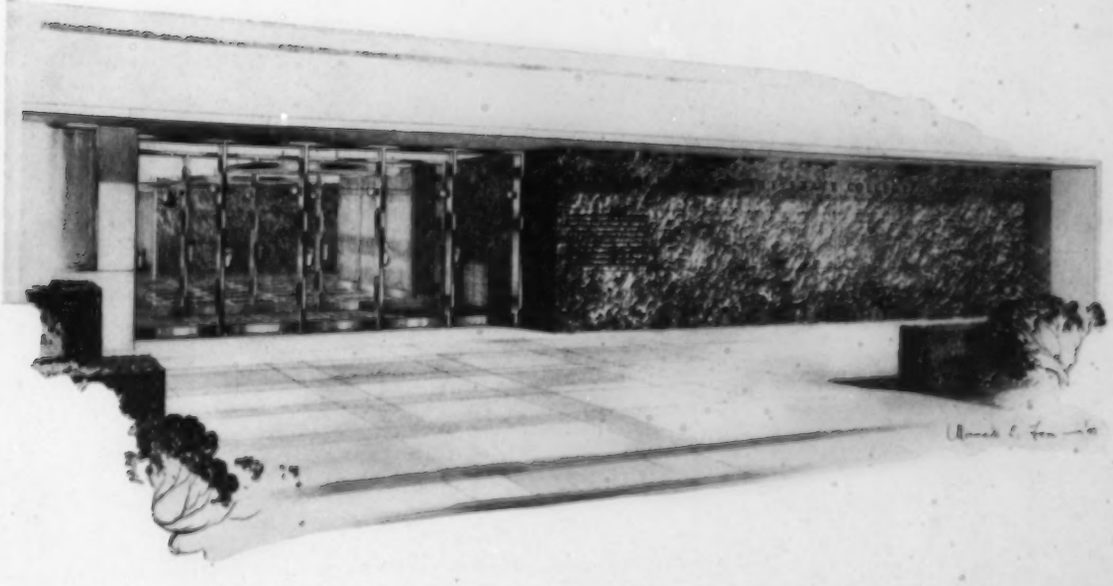
Structure is a reinforced concrete modular frame, brick veneer, limestone combined with rainbow granite trim, aluminum windows. Interior walls are granite-faced in lobby, plaster elsewhere; permanent partitions pumice stone or concrete, expansible partitions, frame. Ceilings are being faced with acoustic cement in special areas, acoustic tile in general areas; flooring asphalt tile except for terrazzo in circulation areas. Lighting is by continuous shallow fluorescent troughers with egg-crate baffles, except for indirect lighting in first-floor public corridor and lounges. Heating of two-pipe gravity low pressure type is by convectors in exterior walls; filtered forced air ventilation is supplied through ceiling diffusers by means of soundproof ducts.

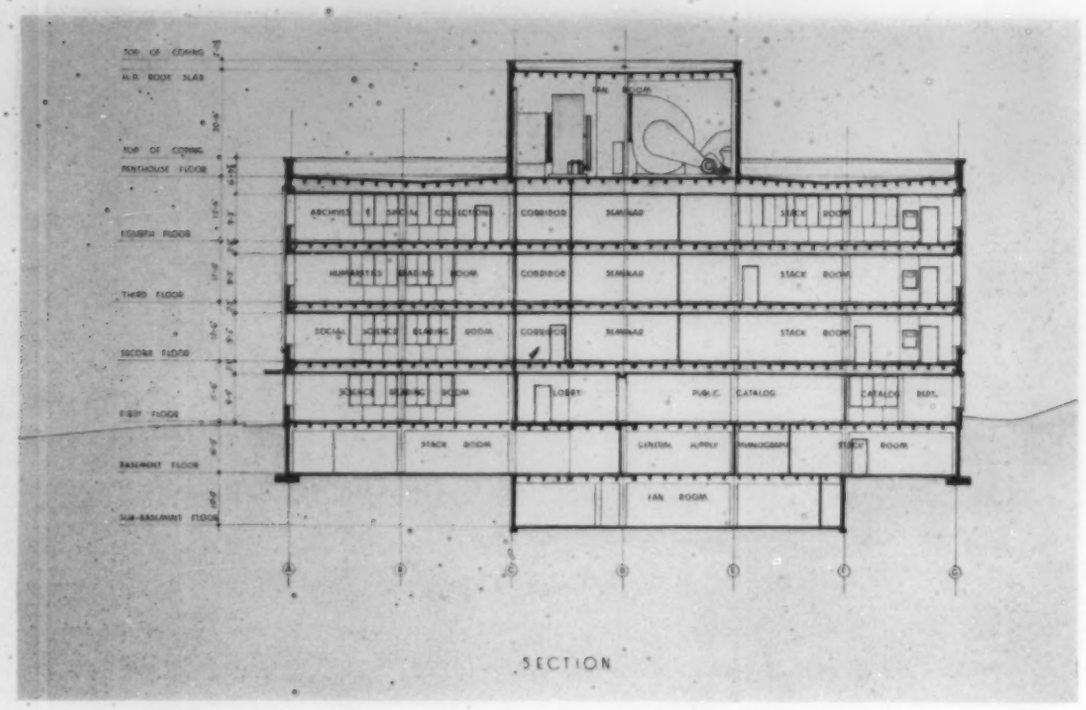


Call systems include intercommunication telephones, clock and program chime paging, audio frequency, pilot light signals for pneumatic tube system and annunciator for circulation desk. Underfloor ducts and raceways are fitted to the modular plan. Elevators and dumbwaiters are supplied for service, public, and books; a kitchen for serving the lecture lounge and another for the staff lounge, which is located on the second floor.

The climate of Washington is such that cooling and humidity control are not required; in this climate it has been found that mildew and bugs readily dry up, eliminating a prominent maintenance worry. A vacuum cleaning system is provided and the cleaning problem is further relieved by the ventilation design. Elec-

MAIN ENTRANCE



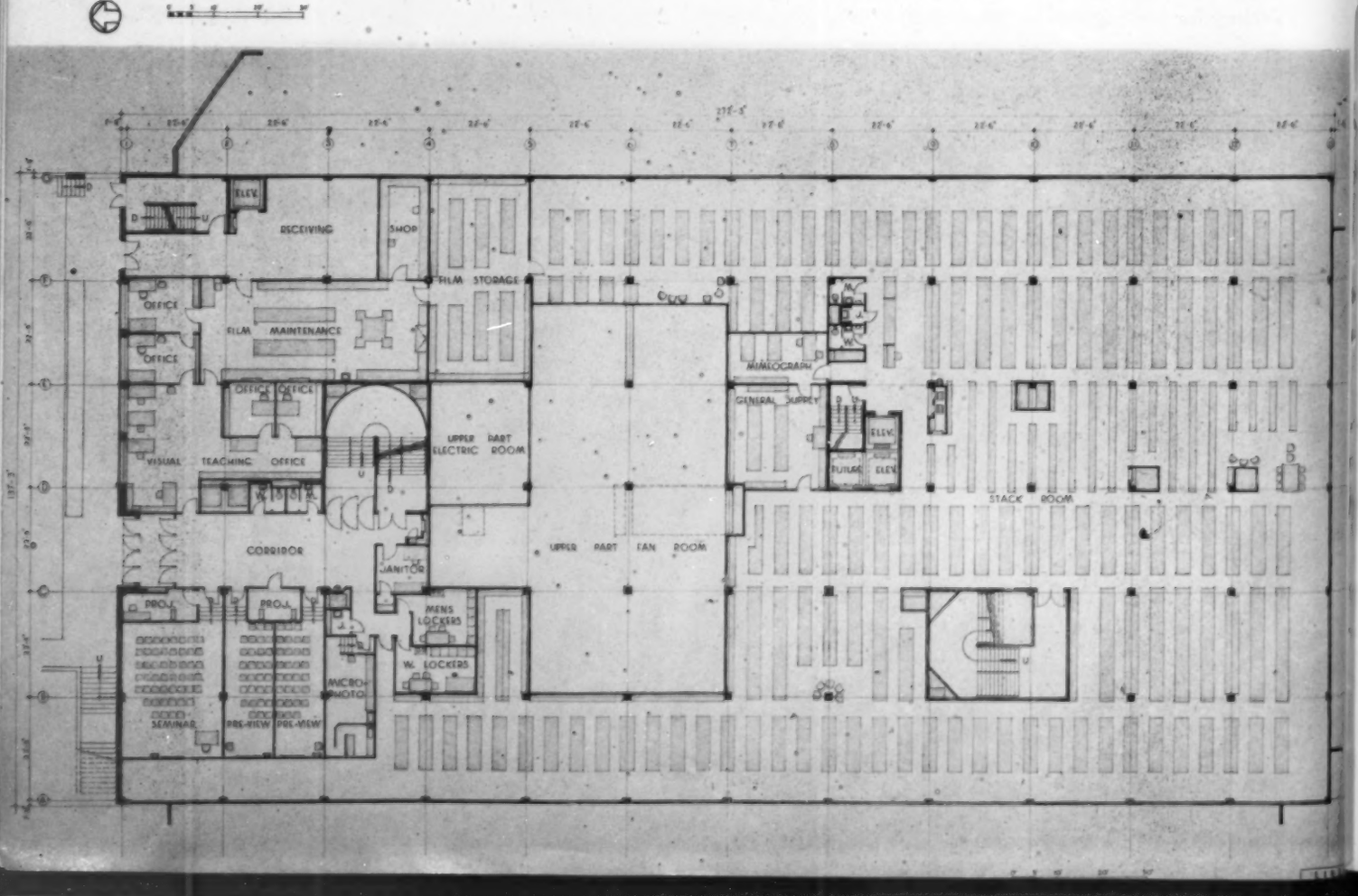


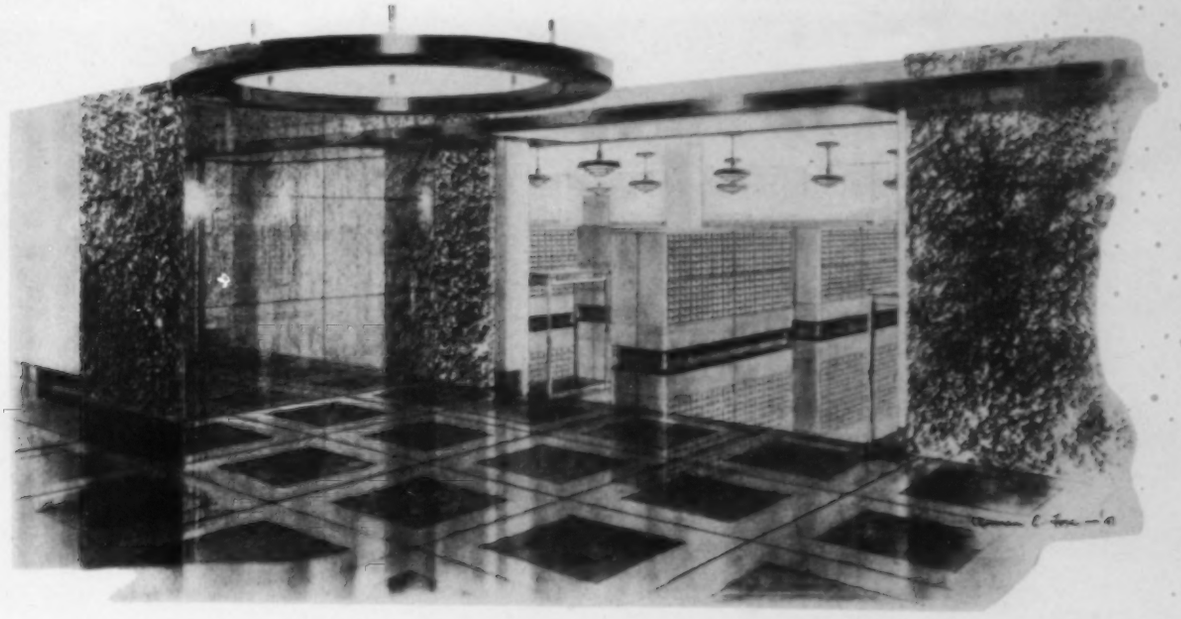
SECTION

trostatic filters on continuous chains initially remove foreign particles from the air and are self-cleaning through an oil bath. The supply air is tempered, automatically controlled, and any desired proportion of return air may be recirculated with fresh air. Convector radiation built into exterior exposed walls forms the other half of the split system. Non-structural intermediate piers conceal heating supply lines and give exterior the appearance of half-spans. These also aid modular planning, and give space for such things as telephone outlets, alternating "house" and outside.

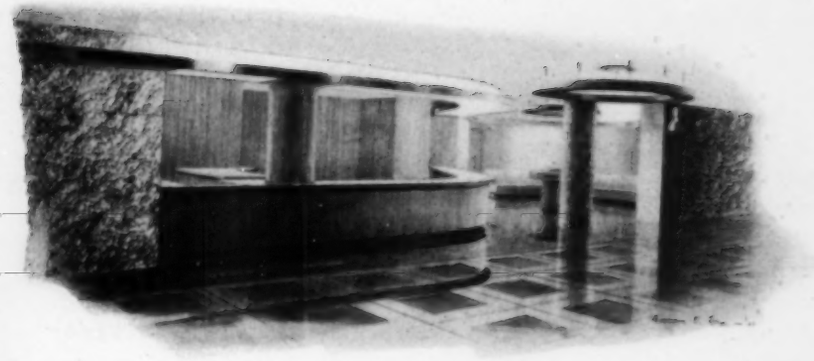
Top librarians have given this library high praise.

BASEMENT





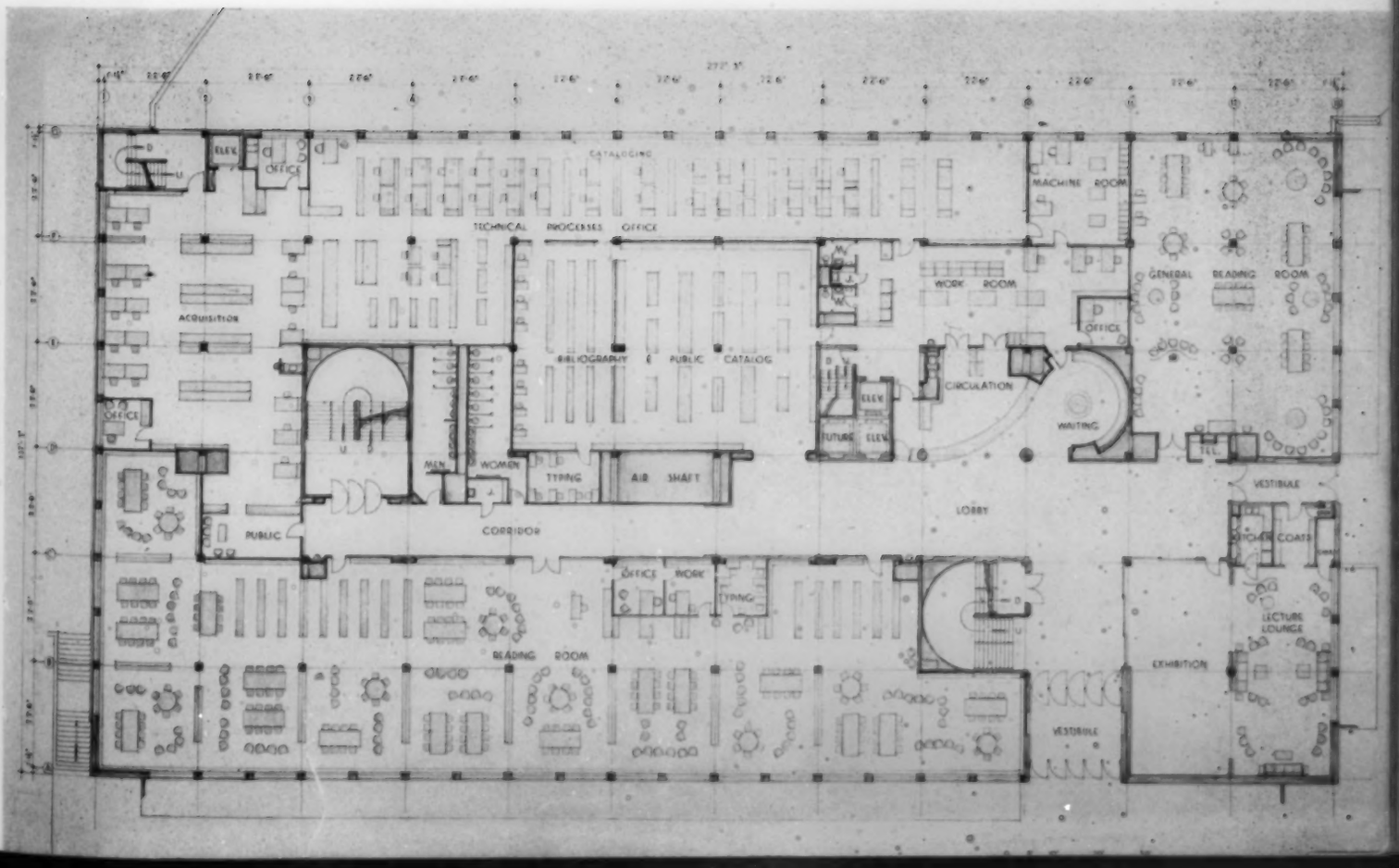
CATALOG

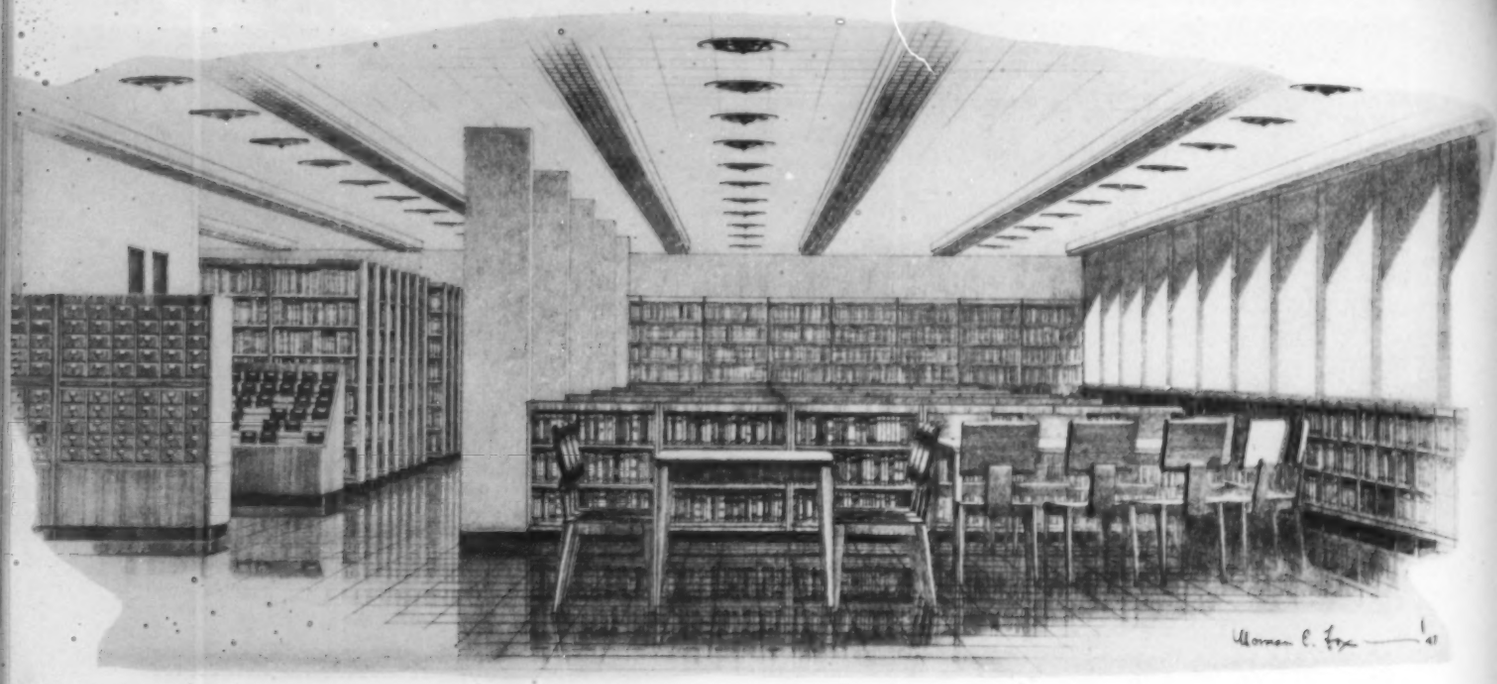


CIRCULATION

Basement floor (opposite page) has elaborate audio-visual department. On main floor (this page) note exhibition-lecture room, to right of entrance, set off by corrugated-glass sliding doors in nickle-silver frames. Catalog room (top view) covering all books in total library adjoins ample circulation desk (middle view) capable of supplying any book to comfortable waiting room (call numbers are flashed on board immediately adjoining circulation desk). Library work space is to rear. First floor is efficient reception center and nerve center of the building

FIRST FLOOR

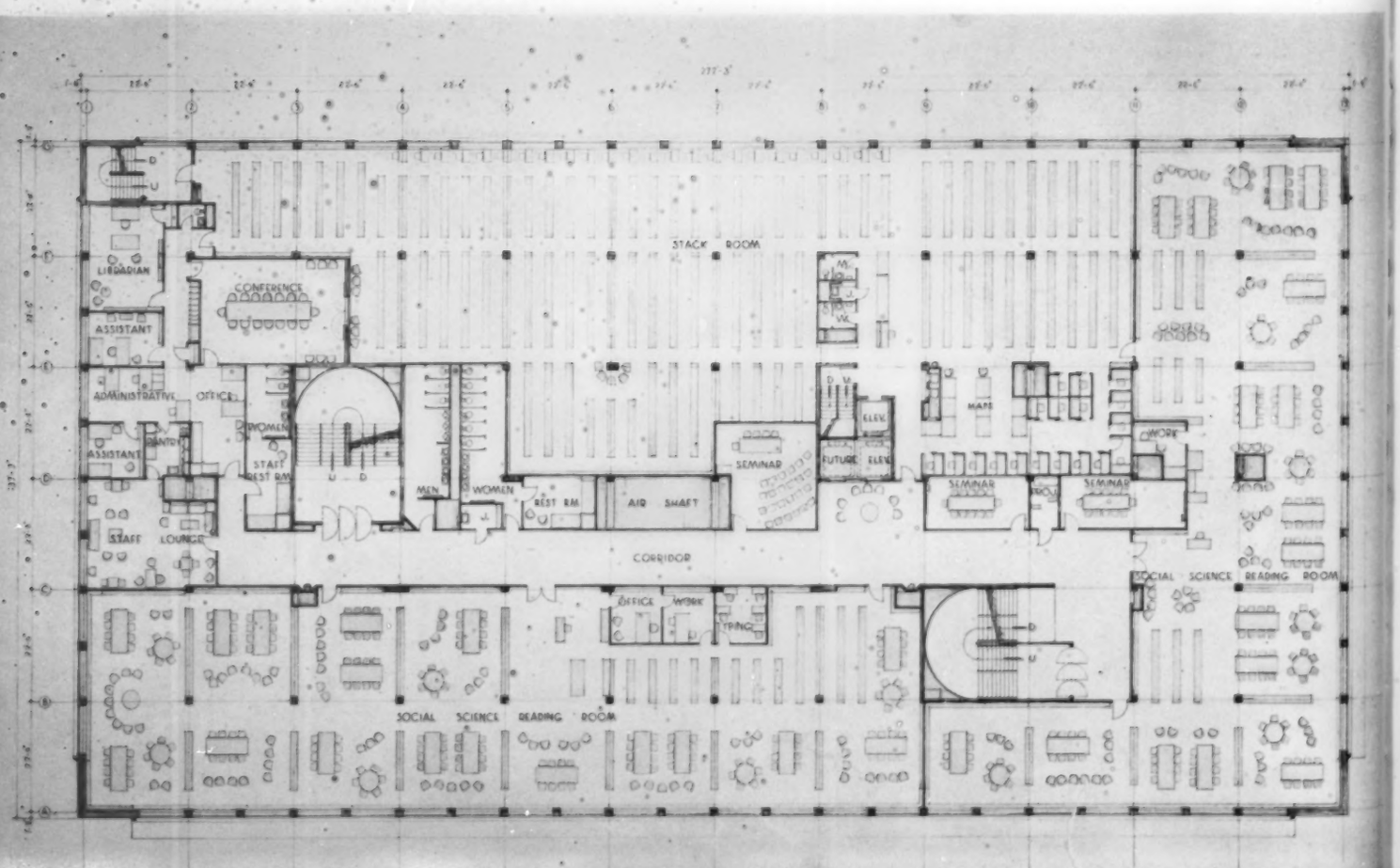




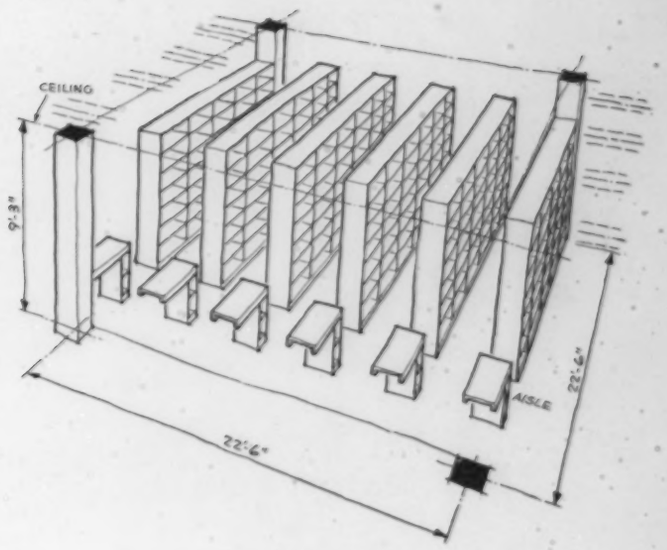
DIVISIONAL READING ROOMS

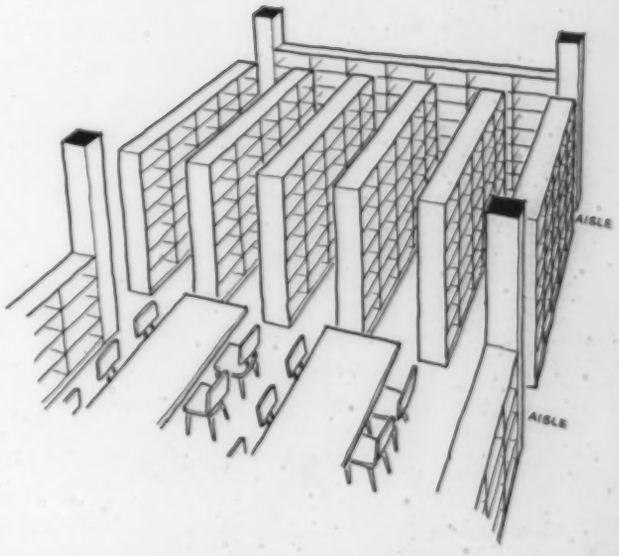
In general plan, the first floor (previous page) serves the general college library (50,000 volumes); upper floors carry divisional libraries. Second floor serves social sciences, also carries administration offices, staff lounge. Third floor serves science, including agriculture, technology. Music room carries books, journals, scores, some 12,000 recordings. Radio and record-playing connections extend to seminars throughout building. Fourth floor carries humanities, collections, twelve private offices intended primarily for faculty research. Probable extension will ultimately yield an L-shaped building. The impact of all elements is one of clarity and order.

SECOND FLOOR



DETAILS OF MODULAR CONSTRUCTION

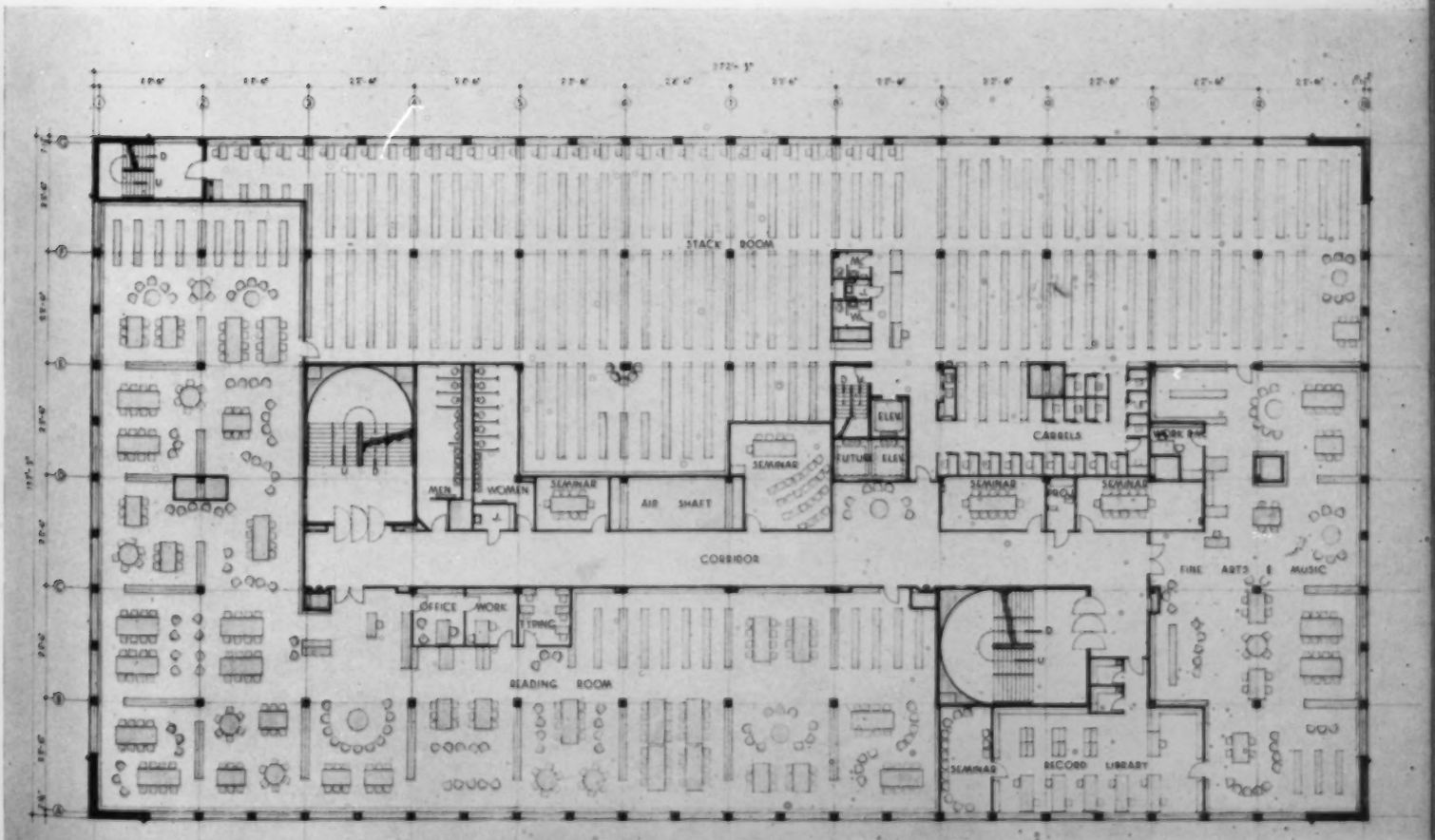


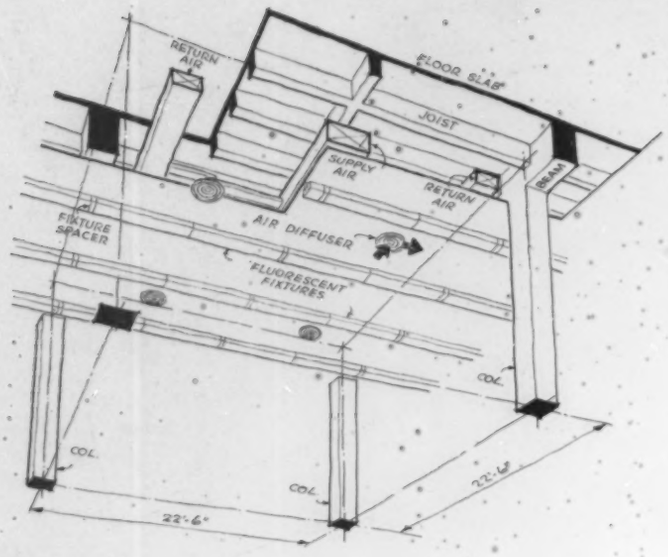


Each of the bays illustrated to the right of this page is a full modular unit. Students are permitted free access to reference material; research and study carrels (study booths) are of both the open and closed type. Reading areas, as seen in the second view, are frequently arranged next to stacks where browsing is encouraged. Low stacks may be used to separate large reading areas into small groups.

The floor-to-floor height of the structural module is 11 ft. 6 in., of which 9 ft. 3 in. is the clear continuous ceiling height. A uniform finished column size of 18 by 18 in. is maintained throughout, permitting stack ranges to align to columns and giving a clear space between columns of 21 ft., which works well for standard 3-ft. stack sections and aisles. The 22-ft. 6-in. square module is comprised of five ranges spaced at 4 ft. 5 in. on centers. It is possible to use any desired plan arrangement in either direction. Only one special 18-in. length of compartment is required to fill in column depths at ranges, but the number of repeats constitutes a production run so as to make them practically a standard. They are rarely required at peripheral walls.

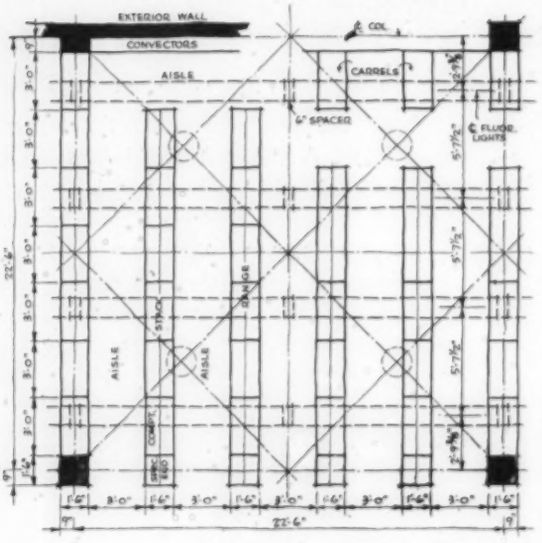
THIRD FLOOR





VENTILATION AND ILLUMINATION

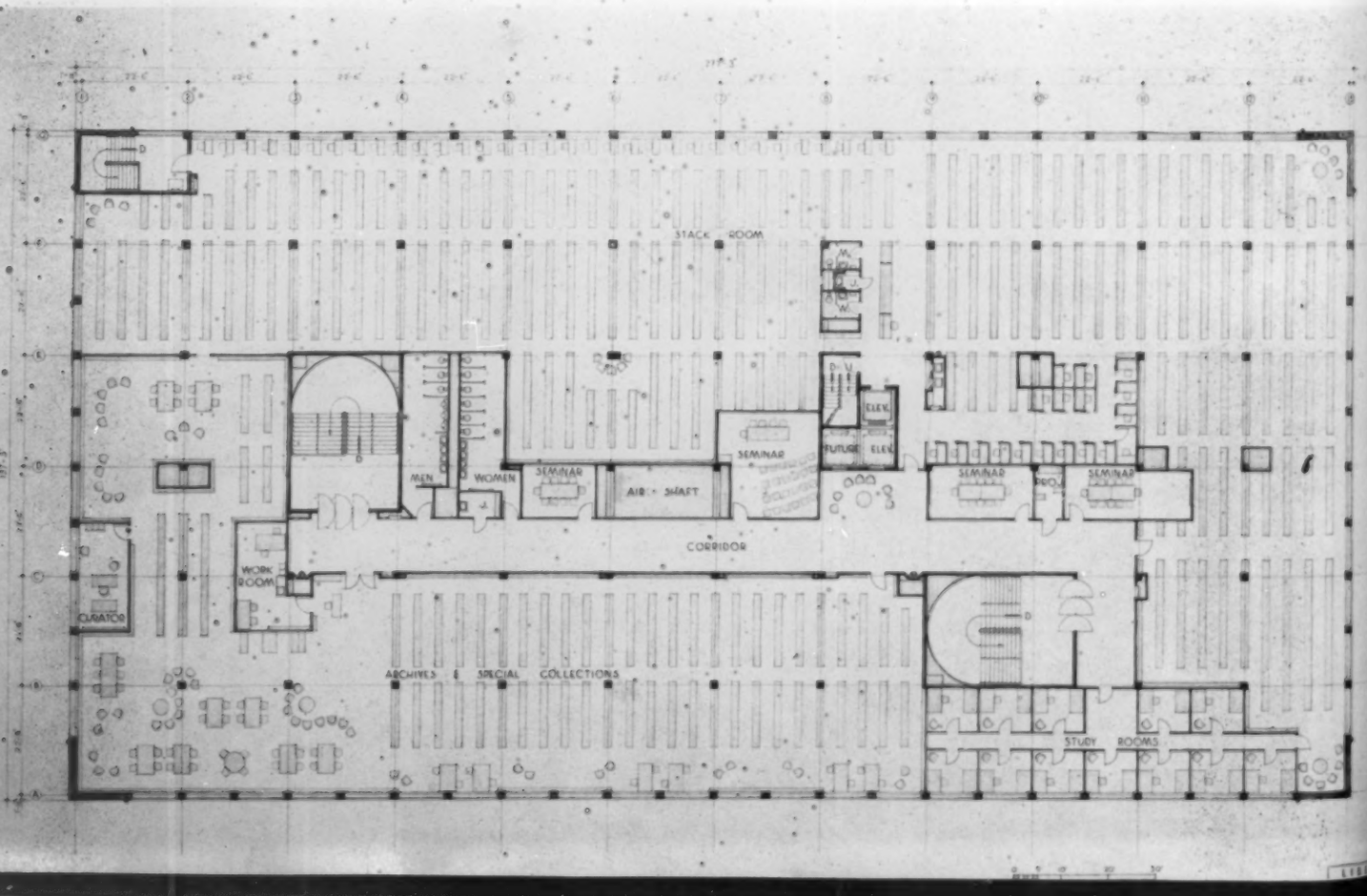
The structural floor system is designed to provide space for duct work between beams. The suspended ceiling covers beams and ducts, providing a level and uninterrupted surface at window-head level. Combined supply-and-return air diffuser heads are placed at the module quarter-points. Slimline fluorescent fixtures are mounted in pairs, continuous except for 6-in. spacers where partitions may occur in the course of future rearrangement

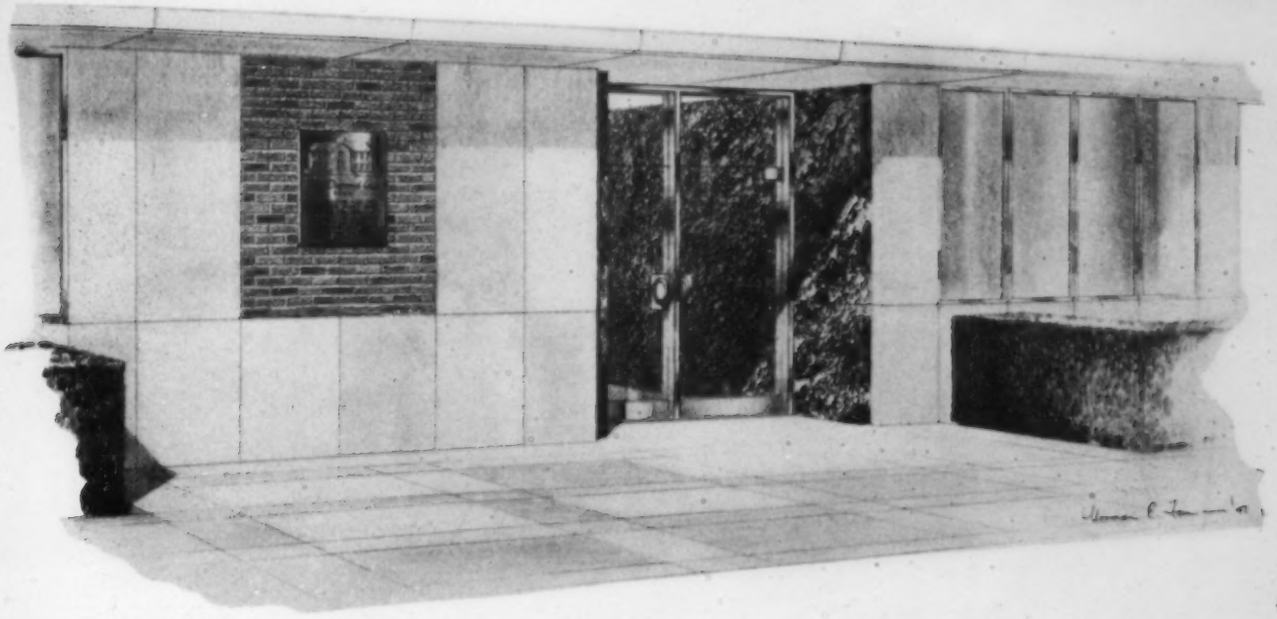


MODULE PLAN

A true composite plan to illustrate unit arrangements that are possible would be confusing. The stacks, carrels, reading areas, offices, seminar, study and special purpose rooms are integrated with utilities and services for efficient flexibility. The hazard of needless multiplication in unchanging areas was considered worth taking

FOURTH FLOOR



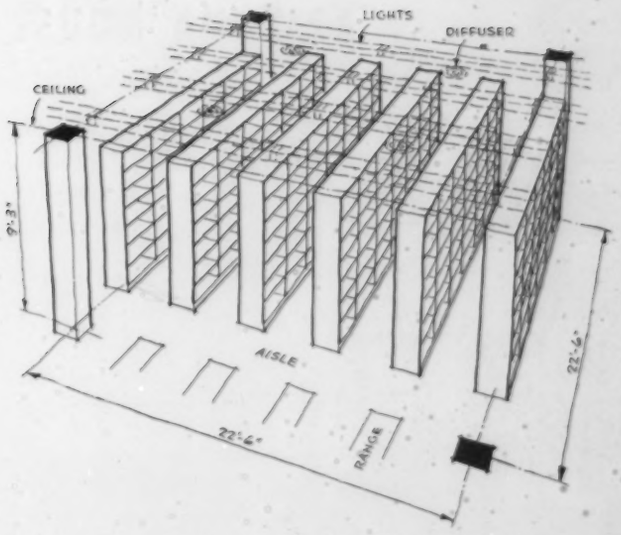


SOUTH ENTRANCE

STACKS AND LIGHTS

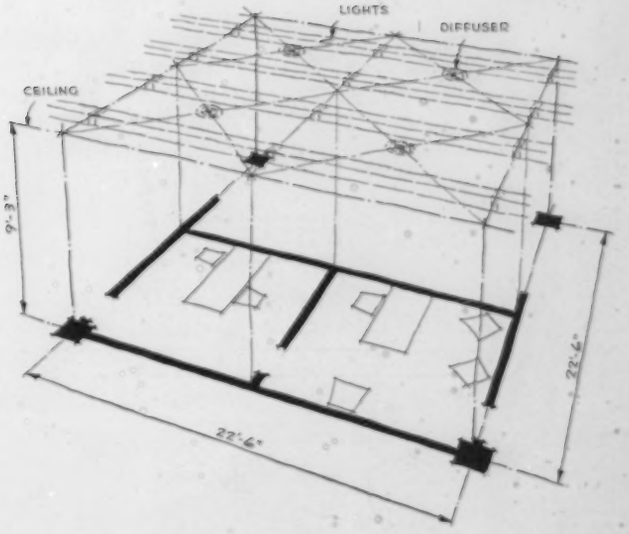
Standard stack arrangement is in ranges of five to every modular unit of 22 ft. 6 in., leaving 3-ft. aisles for foot traffic.

The placing of continuous illumination at right angles to these ranges should register 30 footcandles of illumination at top shelves and 18 footcandles at bottom shelves, as found in mock-up tests. This is more efficient than results that were obtained with lights parallel to ranges



OFFICES AND DESK LIGHTING

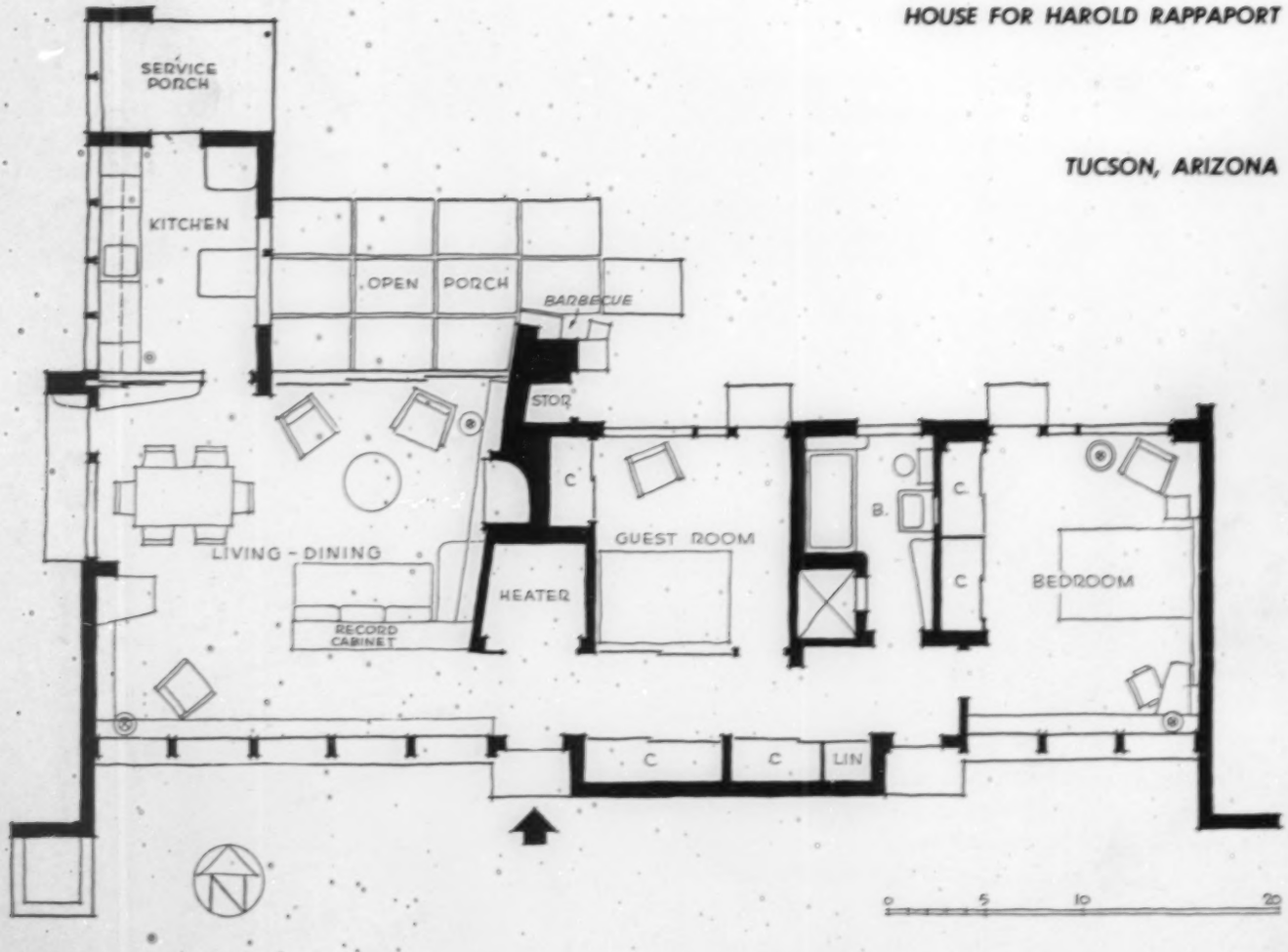
Quarter-modules, halves, or L-shaped areas are easily formed by subdividing the full modular area on quarter-lines. Spacers introduced at these lines in the lighting runs make possible dry-wall construction. Suspended ceilings are finished with screwed-on acoustical tile permitting removal for further installations. Incidentally, there are no desk lighting fixtures, since the depreciated value of illumination received from the ceiling is ample at a full 50 footcandles at reading level at the desk top



ARIZONA HOUSE PLANNED FOR ENTERTAINMENT

HOUSE FOR HAROLD RAPPAPORT

TUCSON, ARIZONA



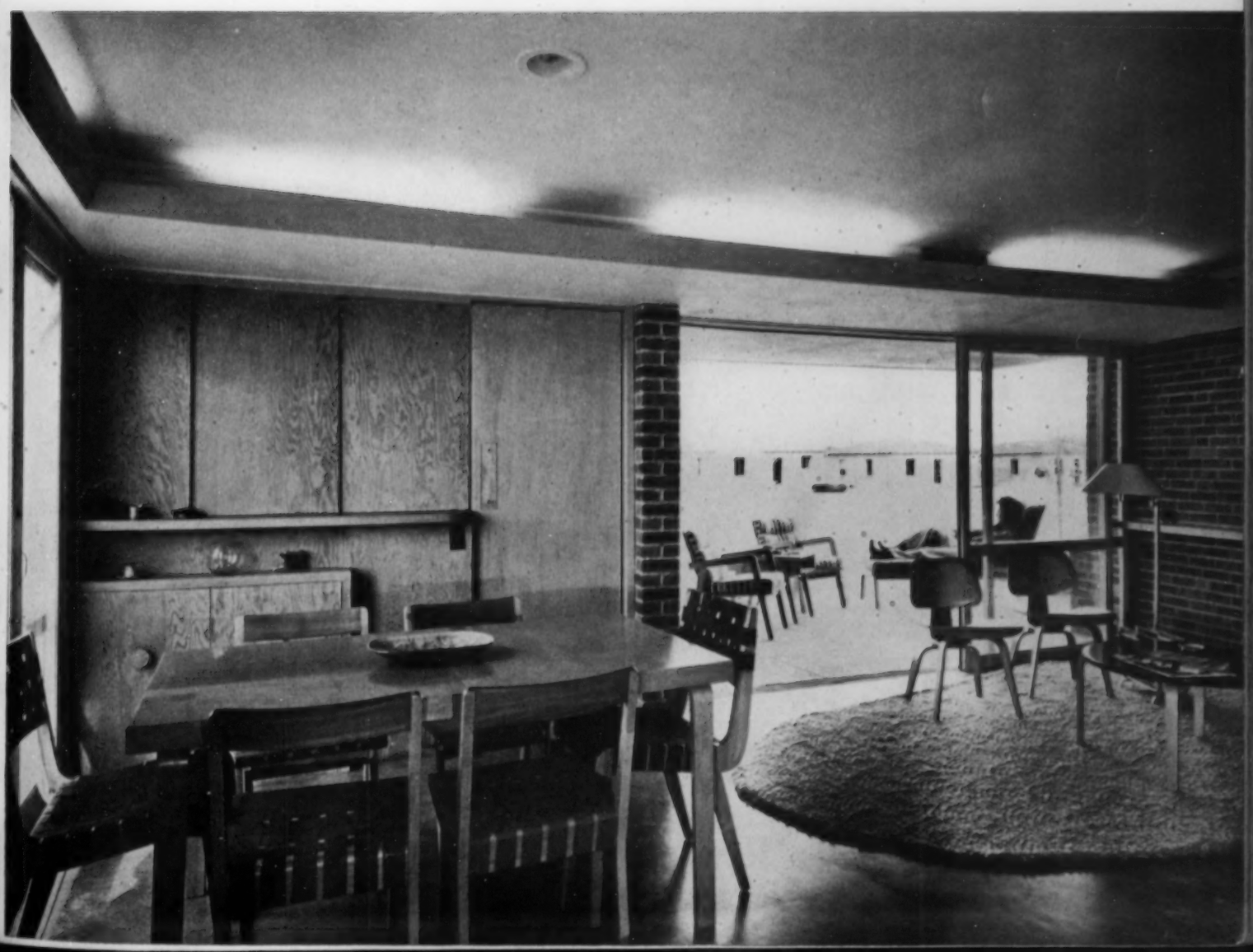
PRIME considerations in the design of this Arizona residence were the owner's extensive collection of records and his liking for the entertainment of many friends at one time. The former was met with an integrated, built-in music unit including a large record cabinet and all the latest type of sound reproducing equipment; the latter resulted in free use of sliding doors to permit opening the living-dining room, kitchen and guest room into a hospitable entertainment unit. A built-in bar with sliding doors separates the kitchen and dining area.

Present requirements of the bachelor owner were satisfied with only one guest room, but provision was made in the plans for the future addition of another bedroom, housekeeper's quarters, and car shelter. A swimming pool and garden wall also will be added later.

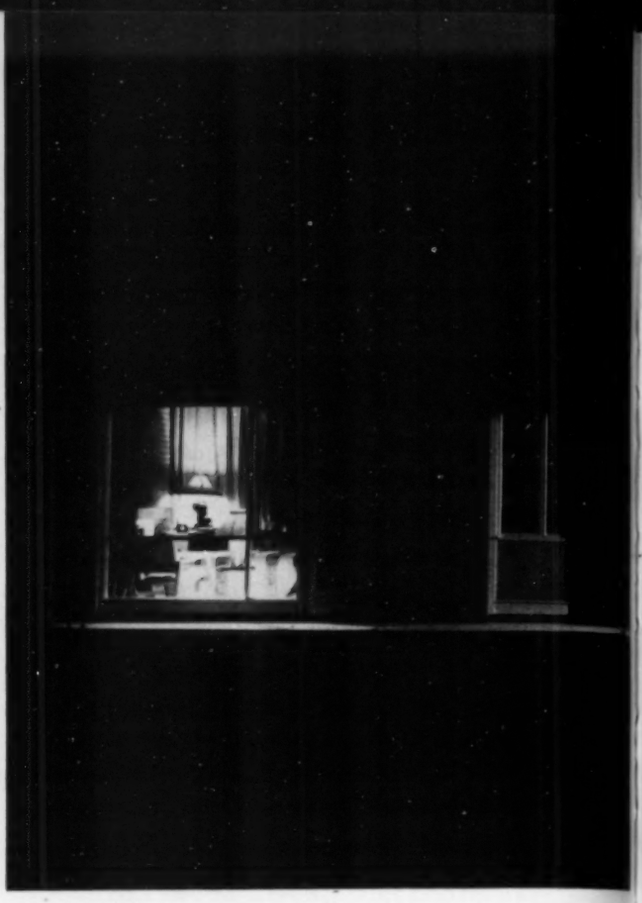
William and Sylvia Wilde, Design Consultants; William Wilde, Architect

Opposite page: the large windows are well sheltered from the summer sun, but the sloped ceiling will let the winter sun penetrate deeply. Above: the living room has sliding doors leading to an open terrace and barbecue. Below: the dining area is separated from the kitchen by a bar with sliding doors (shown closed)

Chuck Abbott Photos



Right: living room, guest room and master bedroom all open directly to the terrace on the north, or rear, side of the house. Service porch and entrance are beyond the living room porch at extreme right of photo



Larry Monahan Photos

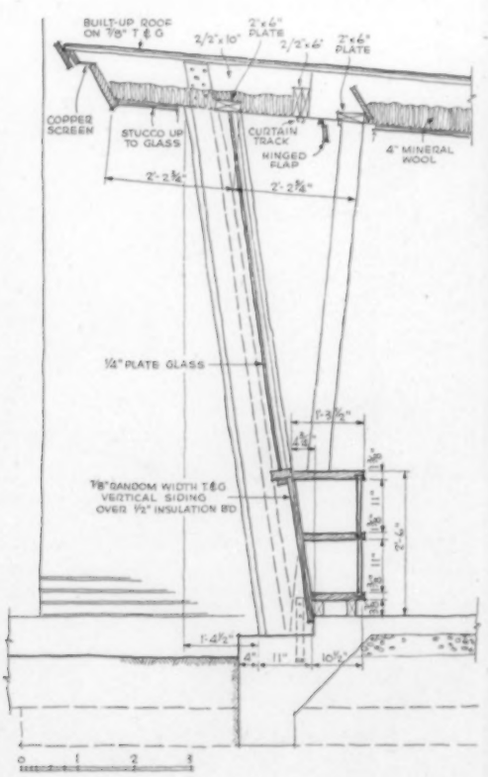
Above and below: two views of the master bedroom. The built-in bed of Mexican walnut forms one unit with a writing desk, book shelves and storage cabinets. Opposite page: the living room as seen from the terrace

Chuck Abbott Photo

Entrance hall, looking toward the master bedroom. Just beyond the built-in record cabinet at left is the furnace room, beyond that the sliding doors of the guest room

Chuck Abbott Photos

The window treatment on the front (south) side of the house, shown in the photograph and detailed drawing below, is designed both to control and to make full use of the Arizona sun

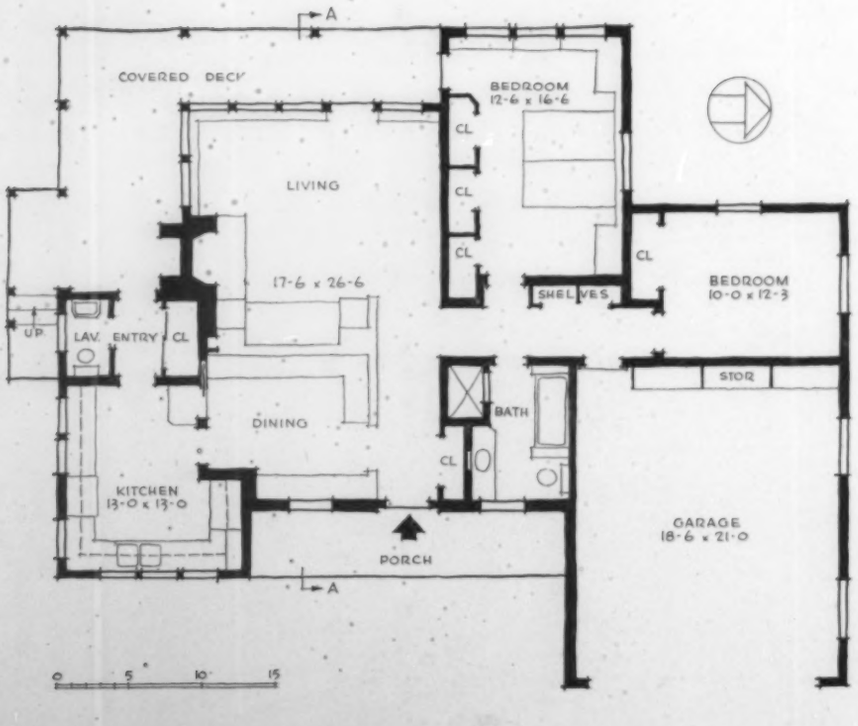


Above: another view of the dining area, showing the large window to the west, the bar, and the compact kitchen with the service entrance beyond. Below: a corner of the guest room and, in background, continuation of the wall shown above

John Robinson Photos

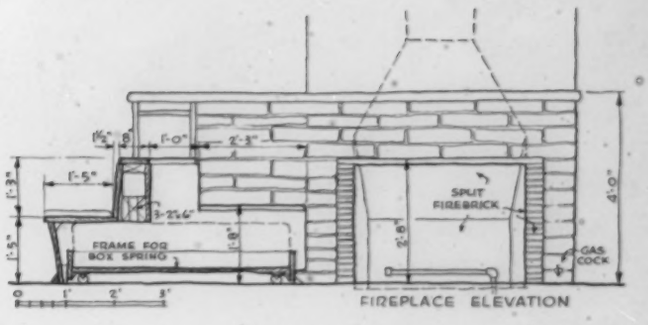
"COMFORT AND BACKGROUND WITHOUT EXCESSIVE COST"

HOUSE FOR DR. RUDOLPH von URBAN, CARMEL, CALIFORNIA



THE design problem here was many faceted: "on a steep lot, to create a feeling of indoor-outdoor living; to employ a combination of sophisticated and rustic materials, with all major furniture built in; allowance for future expansion on the lower level; abundance of storage space; easy handling and feeding of large, informal groups indoors, on deck or lower terrace; covered access from garage; comfort and background without excessive cost."

Exterior walls are resawn redwood shiplap and stabilized adobe veneer. Floors are random width redwood plank, with brick tile, laid flat and waxed in the kitchen. Interior wall coverings are redwood plywood and knotty white pine. The house is heated by a gas forced air furnace and electric wall heaters.

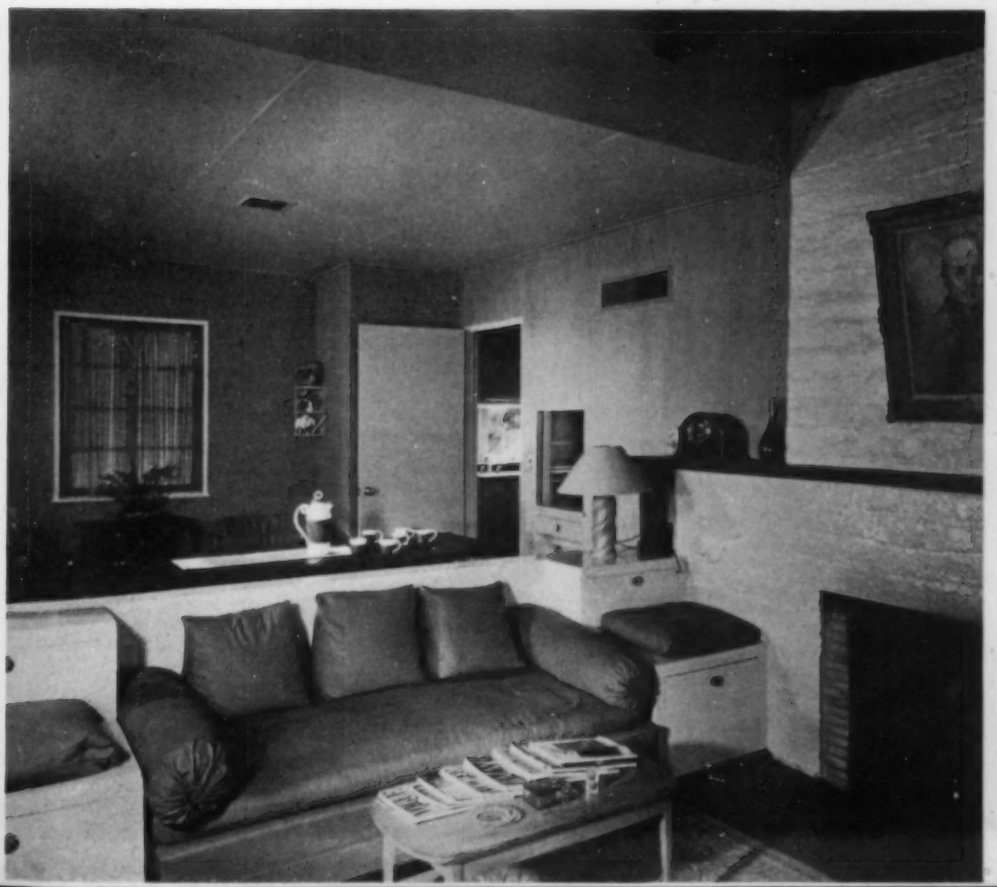


Left: main entrance is hidden from street by careful planting

Right: living room, looking toward back of lot. Below: the living room has a built-in couch backed by a low partition dividing living and dining areas; door leads to kitchen

George H. Woolsey

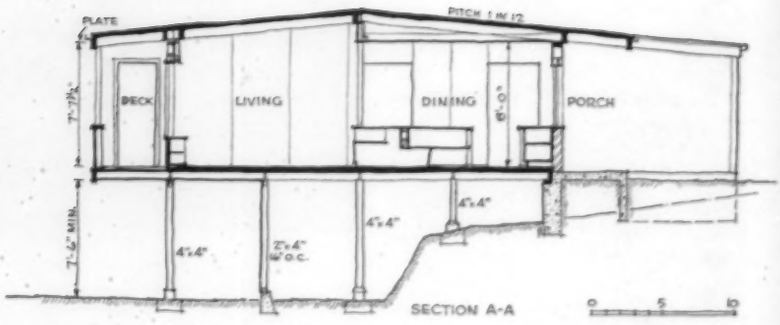
Architect



The larger of the two bedrooms is almost starkly simple, but is rich in storage space. Most of the furniture is built in

John Robinson Photos

Left: looking along the gallery past living room windows to master bedroom



Below: left, living room from kitchen door, showing service port and counter; right, kitchen has brick tile floor and ample storage room

RESTAURANTS

ARCHITECTURAL RECORD'S
BUILDING TYPES STUDY NO. 139

THEY ARE PLANNED FOR FOOD AND FOR ATMOSPHERE

A SIMPLIFIED diagram of a restaurant would show a box with two open ends: one end would be the food-intake; the other would attract the customers. If the restaurant is planned well, food and customer — both properly prepared — will meet in the middle.

The intake of food and its preparation is a complex technical process, but it no longer holds many mysteries that can't be solved by clear thinking and fluent organization. The intake of customers, on the other hand, is almost a fine art, involving not only the best planning ability but also a smattering of showmanship and psychology. In the motor-city of Los Angeles, for example, "Mine Host" may virtually have to pry his customers off the fast concrete expressways which crisscross Southern California. He therefore sets up enormous neon-lighted billboard-façades, and his architect might as well become reconciled to them.

Supposing, however, that you have your customer where you want him, the next step is to decide exactly what you want to do with him. Some downtown cafeterias, for instance, try to get a complete rush-hour turnover of customers every 20 minutes; they will, therefore, be designed specifically to discourage loungers. Other restaurants, especially those that serve drinks, will try to hold their customers as long as they can; *their* atmosphere, therefore, is going to be calculated to soothe, comfort and detain. Some eating places, along highways and so on, don't depend upon "repeat" customers, while others count upon at least 50 per cent of their business to come from steady patrons.

How does one make "atmosphere"? The answer, according to one experienced restaurant designer, is to control everything from the lettering on your façade to the lettering on the customer's check. The first thing to decide is exactly *what* atmosphere the owner wants. Does he plan to attract a Hollywood, or a Colonial Dame? Does he propose to feed people waiting to board a Constellation, or to provide relaxation for a Board of Directors in a Downtown Club? Is he asking you to design a fluorescently brilliant cafeteria, or is he planning to serve home-cooked meals under homelike filament lamps? And, finally, where does he plan to build? Among semi-tropical California plant-life, or in the slick, brassy surroundings of Chicago's Loop? The answers to these questions will go to determine your atmosphere.

Lighting, especially, is one aspect of restaurant design that can't be overemphasized. When a Hollywood restaurant has its "Premiere," vast batteries of searchlights may be called into action to make the Battle of Britain look, by comparison, like a mild argument among friends; whereas an intimate little restaurant near Rockefeller Center may deliberately try to put up an almost shy front, dimly lit, to make its patrons feel that they have hit on something out of the ordinary and special. This same psychological approach can be used effectively in designing interior lighting: light that glosses over a woman's vital statistics may do a great deal to boost a restaurant's returns; while pinpoint spots that turn each table into an intimate little island may do the same and more.

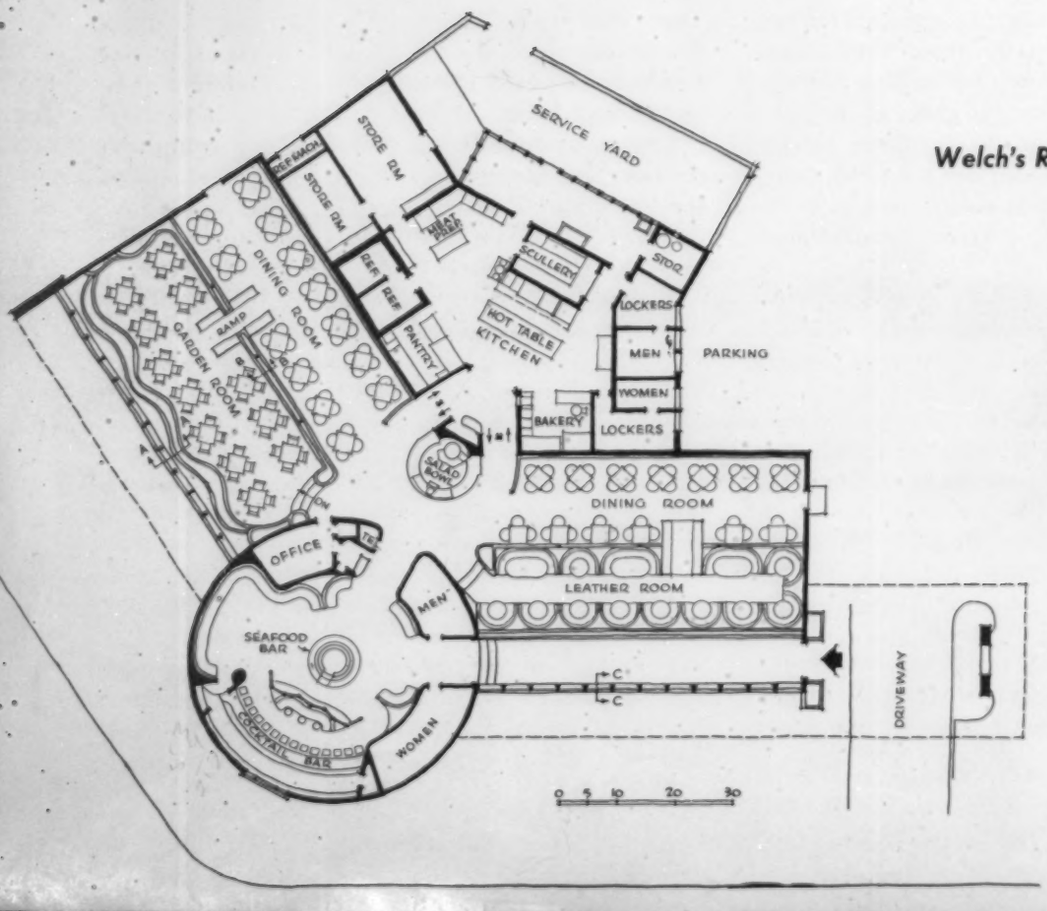
Let's assume that all these factors have been considered and that the customer is happy and content. There still remains the primary question of a good plan. Apart from such obvious "musts" as interrupted circulation between kitchen and dining areas, easy control and plenty of space at the entrance, and comfortable table layout (all covered in detail in Building Types Study No. 127, July, 1947), we must deal with the all-important problem of fluent kitchen planning. Unless it is solved efficiently, your restaurant won't operate at a profit.

Kitchen areas generally fall into four groups: the receiving and storage area, the food preparation area, the pick-up area, the dishwashing area. In addition, there must be certain facilities for the restaurant staff — very important if you want it to give good service.

Kitchen equipment, materials and finishes used should be carefully selected, preferably with the help of a kitchen specialist. Materials and finishes must be chosen for cleanliness and hard wear, and floors must also be slipproof. Fire-resistance is a special consideration near the ranges, which will have hoods large enough to prevent the spread of fires, and must be supported on non-inflammable floors insulated with air spaces. Finally, and most importantly, the ventilating system of the kitchen as well as that of the entire restaurant must be perfect; occasionally two entirely separate systems are used for kitchen and dining areas.

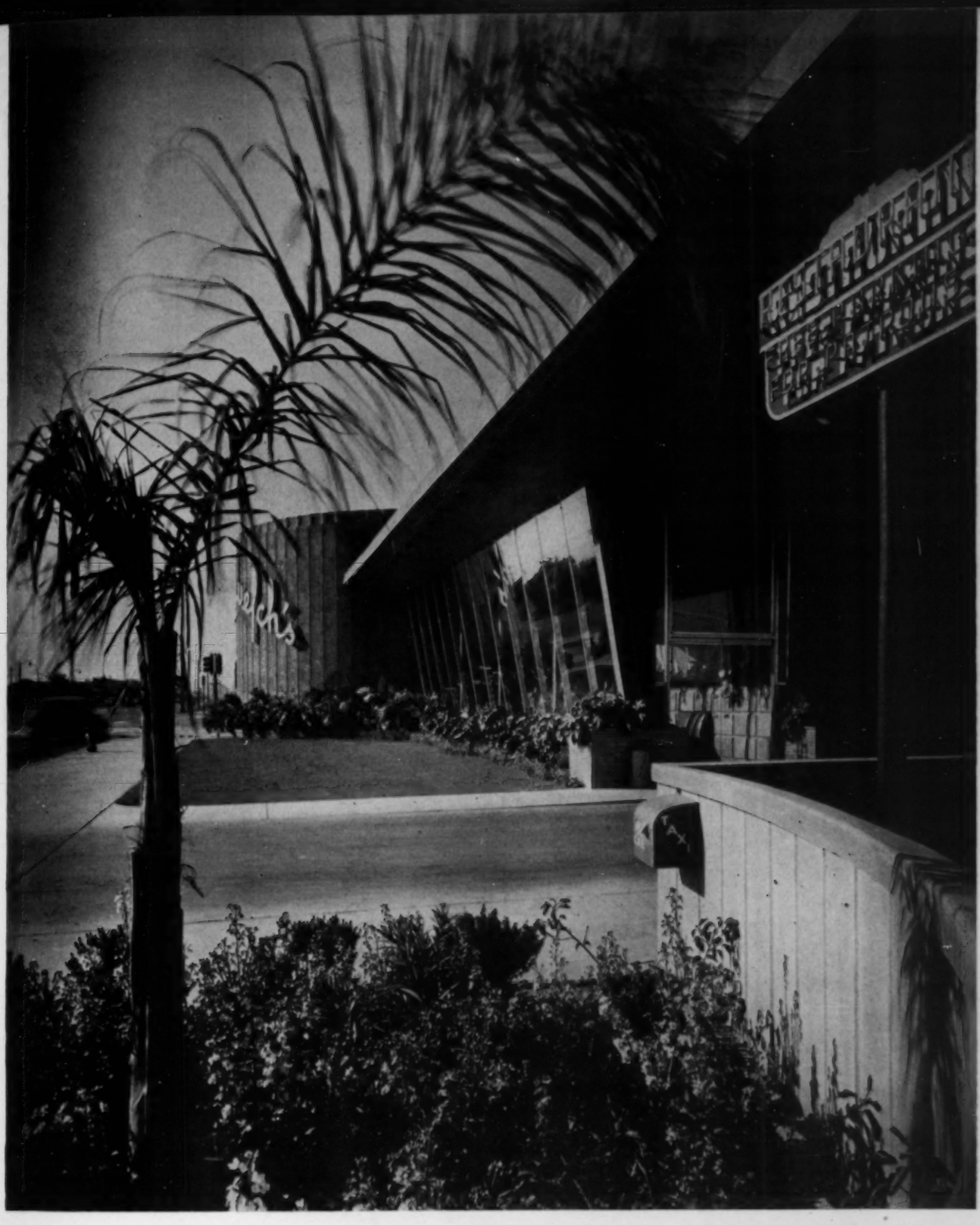
From here on every restaurant owner and his architect are on their own. Their ability to solve each problem in its special setting will be the measure of their success.

AN EATING PLACE FOR MOTORIZED DINERS



Welch's Restaurant, Long Beach, Calif.

L. M. Saunders, Designer

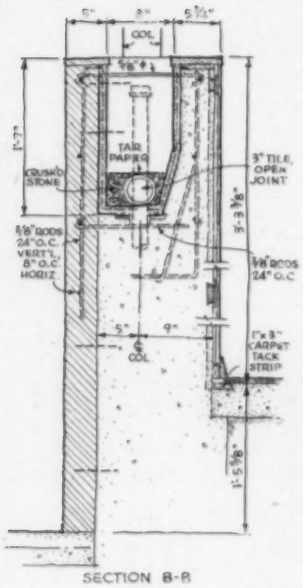


Maynard L. Parker Photos

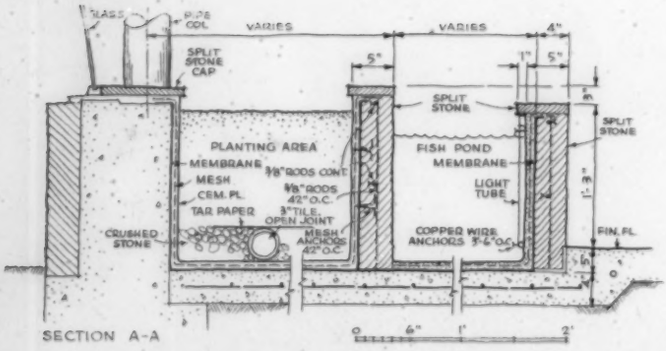
IN SOME parts of the country, where eating out has become almost impossible without a car, restaurants must do two things they don't necessarily have to do elsewhere: they must attract the attention of relatively fast-moving motorists, and they must provide parking space for at least as many cars as they have tables.

Welch's in Long Beach does both of these things well. Few motorists could avoid spotting the fluted, cactus-green rotunda at the corner of San Antonio Drive and Atlantic Avenue. And once they have turned into the wide driveway they will find ample parking space.

It is interesting to note that even with a somewhat inflexible plan can go a rather free and elegant exterior, replete with long roof overhang, floor-to-ceiling windows of a single sheet of glass, free-standing lally column supports, and a pleasant integration of out- and indoor planting. The fact that the acceptance of such details is sometimes only skin-deep (as in this case) does not detract from the pleasing notion that practical businessmen — such as restaurant owners — seem to have discovered that good design pays. It may not be long before they discover that it pays in the plan too.



SECTION B-B



SECTION A-A

The Garden Room, perhaps the most successful part of this restaurant, has a spacious informality. Serpentine walls, originally used in America by Jefferson, have recently become popular again since Richard Neutra used them effectively in his Nesbit House.

The planning of the kitchen-dining relationship is generally sound, but the distance from the kitchen to the customer could have been shortened if the designer had been willing to give up the axial and symmetrical patterns underlying his plan. The overall architectural effect achieved in this room is nevertheless pleasant

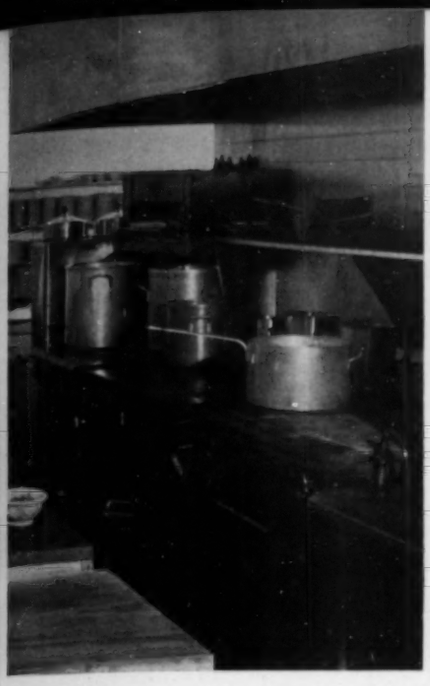
Maynard L. Parker Photos

The kitchen is carefully planned. To the left, close to the waiters' return door, is the dishwashing area. Opposite it is the pick-up counter for orders prepared on the range at the extreme right. Refrigerator and meat-preparation are in the rear

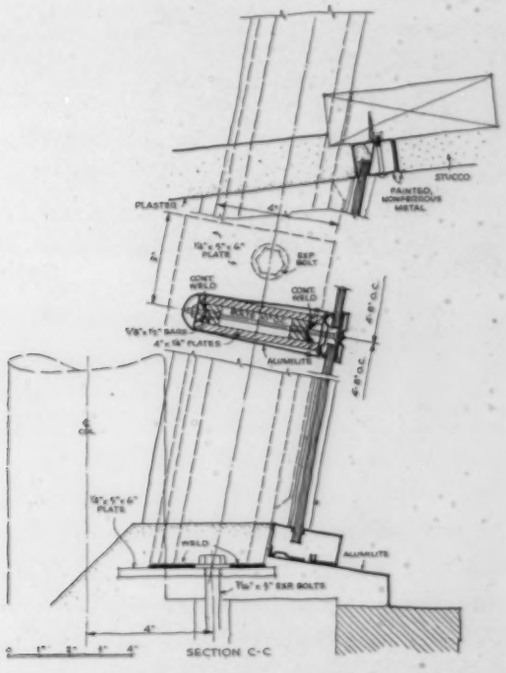
Kramer Photo

The restaurant is jointly owned by a group of Navy officers who, presumably being fluent in Chinese, have inscribed the cocktail bar (left) with the rather gloomy motto: "Enjoy yourself, for it is later than you think!" The Dining Room (below) immediately adjoins the Garden Room. To the right is a large, terra-cotta colored "Salad Bowl"

Photos by Maynard L. Parker except where noted. Mural by Ernest Neuman



A long ramp serves as a pleasant waiting area and leads up from the main entrance at the driveway. The circular archway (allegedly Chinese) frames the aquarium-like seafood bar at the center of the building



WINDOW DETAIL

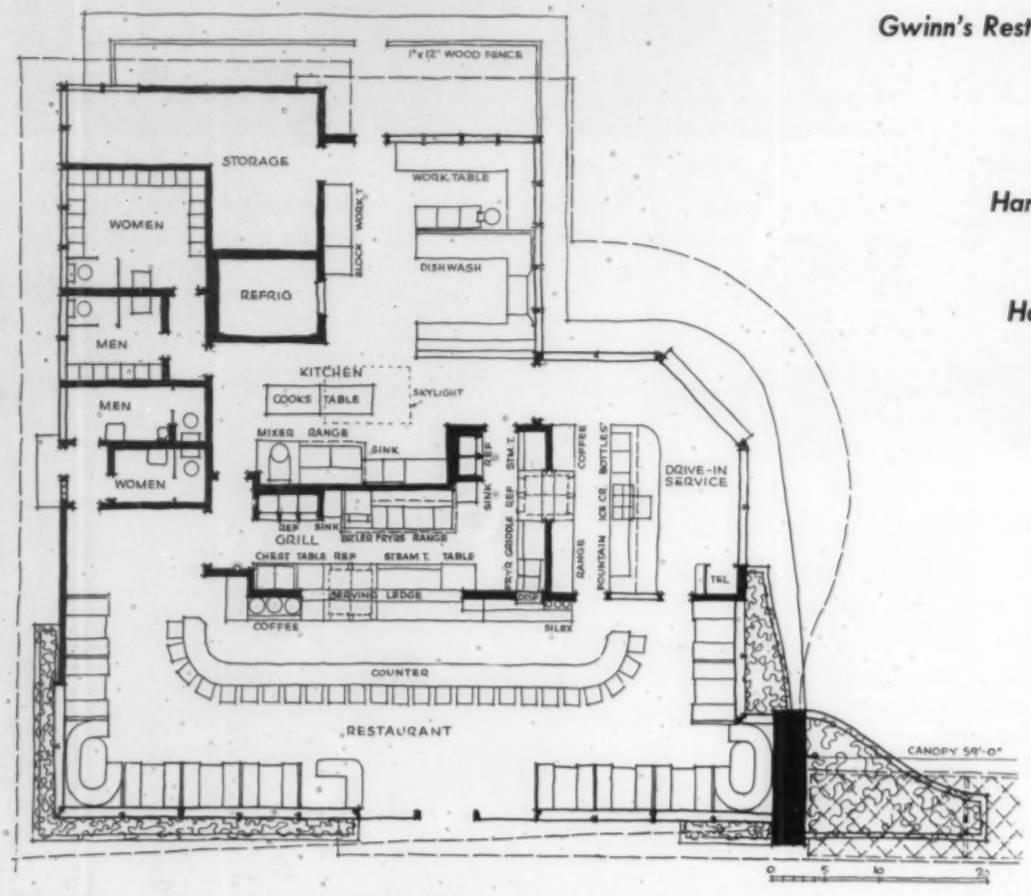
The North Dining Room (below) reaches out from the central "Salad Bowl." It adjoins the Leather Room (lower right), which is more subdued in character than the opposite Garden Room. Its long tables are ingeniously designed to pivot on a fixed pedestal and swing out, so that diners can walk around to their seats rather than slide in sideways. The Leather Room overlooks the entrance ramp

TWO RESTAURANTS IN ONE

Gwinn's Restaurant, Pasadena, Calif.

Harold J. Bissner, Architect

Harold B. Zook, Architect



Some of the special requirements discussed with reference to Welch's Restaurant (p. 120) apply to this case as well. But in addition to providing an attractive, attention-getting design, Gwinn's architects have succeeded in creating a dual-function restaurant: one part of it is a drive-in, the other a conventional eating place.

THE PLAN of the kitchen shows excellent organization. Its various areas are carefully segregated and yet related in a very apparent flow-pattern. Food storage, food cleaning and refrigeration are grouped around the service entrance. The dishwashing area is located within easy access from either the drive-in or the restaurant proper. Food preparation is carried on centrally, so that both the restaurant counter and the drive-in counter can be supplied. And the ample employee facilities show understanding of the importance of a good staff.

To architects and laymen alike the success of the exterior treatment of Gwinn's will be obvious. The horizontal *motif* of overlapping roof planes, the finely detailed expanse of glass, and the restrained but effective "billboard" all produce in this restaurant an admirably high standard.

Julius Shulman Photos

The drive-in service opens out to the rear of the building, where there are also ample parking facilities. A small soda-fountain type of counter is used to cater especially to drive-in patrons. A weakness of the plan seems to lie in the unnecessarily complicated access from the parking lot to the main restaurant

Julius Shulman Photos

The egg-crate pattern of the free-standing canopy — obviously a device dear to the architects' hearts — extends clear back into the main restaurant. Its chief function seems to be to create a decorative accent, and as such it may, or may not, appeal to the onlooker. A further questionable detail is the alignment of the Roman brick, which, like the canopy, primarily contributes a decorative feature. Food preparation center (left) shows only a small portion of the elaborate kitchen

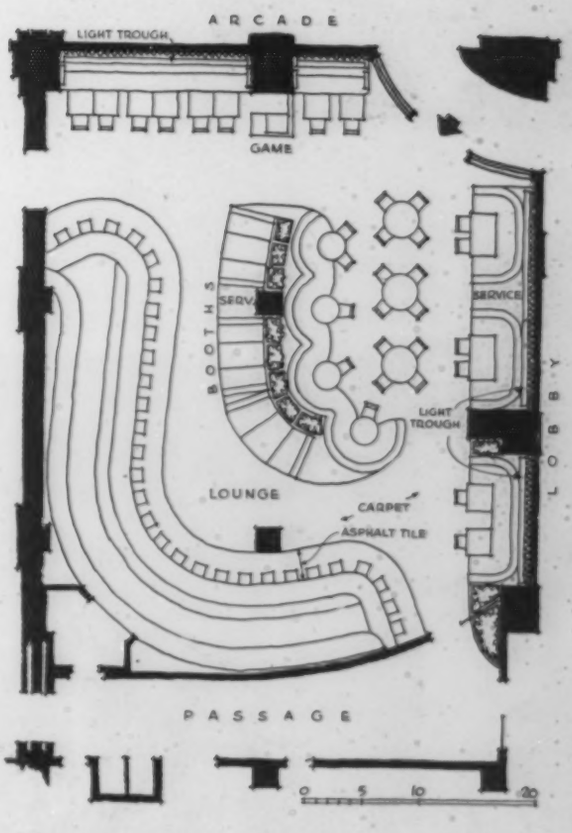
It is a little disappointing to find, behind so elegant and successful an exterior, an interior treatment that shows a lack of sensitive detailing. However, since most restaurant equipment is standard (and not always of the best design), the expense incurred in designing special fixtures might not be justified by the economics of restaurant operation

Hedrich-Blessing Photos

A LIGHTING EFFECT FOR EVERY MOOD

Henrici's Restaurant, Merchandise Mart, Chicago

James F. Eppenstein & Raymond Schwab, Architects

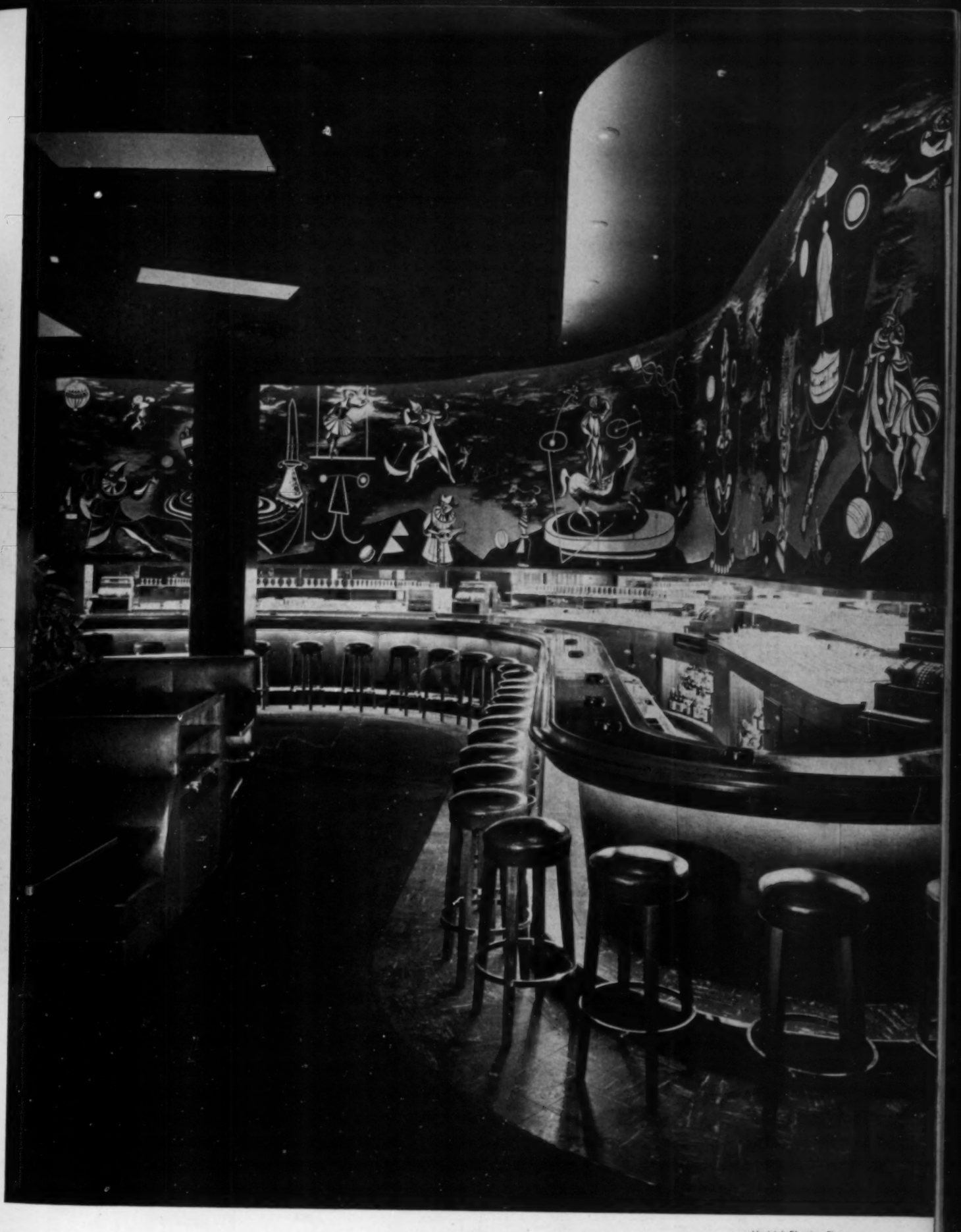


OFF THE ARCADE in Chicago's Merchandise Mart, Henrici's Restaurant presents an unexpected vision of glamour. Designed around a colorful mural by Felix Ruvalo and an intricate lighting system that changes in intensity for luncheon, cocktails and dinner, this elegant little retreat is said to wow the customers.

While there is nothing revolutionary about the plan (which has clearly been dictated by existing conditions), colors and lighting raise some interesting points. Throughout the restaurant various shades of green predominate. While the mural may seem aggressively restless, its color scheme has been recalled in the furnishings and thus subordinated to the overall architectural effect. The lighting system uses pin-hole spots, recessed ceiling fixtures and theater-type dimmers.

Among the lighting tricks used in Henrici's is a trough that illuminates the rich wall draperies woven with a glittering gold thread. At lunch time the overall lighting will be of high intensity; for afternoon cocktails the intensity is reduced until, at dinner time, a dim, intimate lighting prevails. The plant island to the right has its own spot illumination

A view from the Arcade shows the large, clean frame of the doors, set into a curved glass wall that permits clear vision of the interior. The recessed box lighting in the ceiling seems to detract somewhat from the tranquil, overall effect. Exterior is of Italian travertine marble

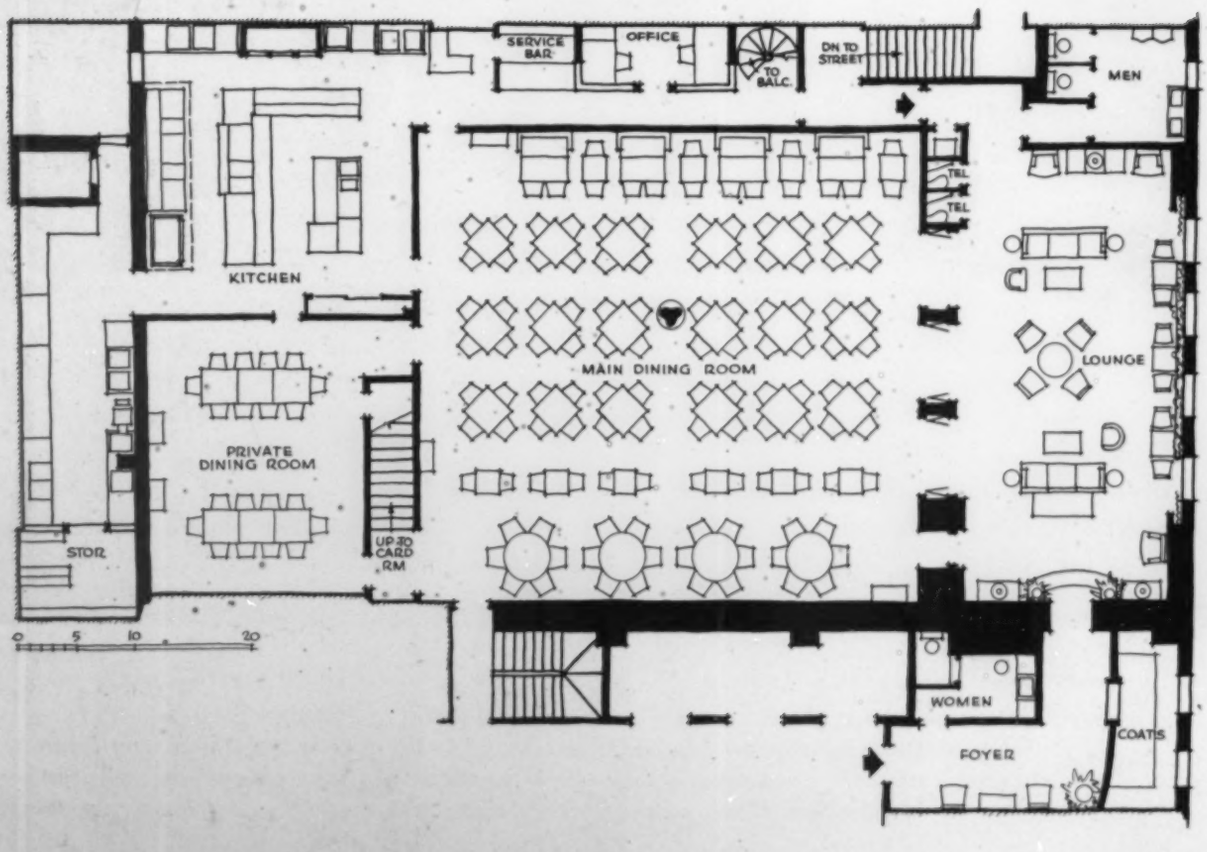


Hedrich-Blessing Photos

Ruvalo's luminescent mural is stressed by "black light" to become the dominant feature of the restaurant. The lighting of the bartenders' work area is below customer eye-level to cut out unpleasant glare. In the rear, at the turn of the long curve, there is a service hatch for outside supplies

EFFICIENTLY PLANNED FOR SOCIABILITY

Downtown Club, Dallas, Texas *George Foster Harrell, Architect*



The Foyer (right) is entered from the Texas Bank Building. Direct access from the street is handled as of secondary importance. The Lounge (below) is cove-lighted

THE DOWNTOWN CLUB of Dallas adjoins the tall Texas Bank Building, from whose second floor lobby it can be entered. Designed as a private luncheon club, it was given a quiet, restful atmosphere through designer-control of such incidental details as the silverware and the china, as well as of the plan and the complete interior.

The central feature of the Downtown Club is its two-story Main Dining Room (opposite) with the five-pointed Texas star implacably in the ceiling. Grouped around the Main Dining Room are a Lounge, Private Dining Room, Card Room (on the mezzanine level) and the kitchen and work areas. The latter, especially, show careful attention to efficient planning. Staff facilities are on the mezzanine also, with spiral stair.

The Private Dining Room (right) can be sub-divided by a folding screen into two smaller areas for more intimate parties. It is within easy reach of the kitchen area. Note the air conditioning grilles at the ceiling — part of the year-round system designed for this Club

Gottscho-Schleisner Photos

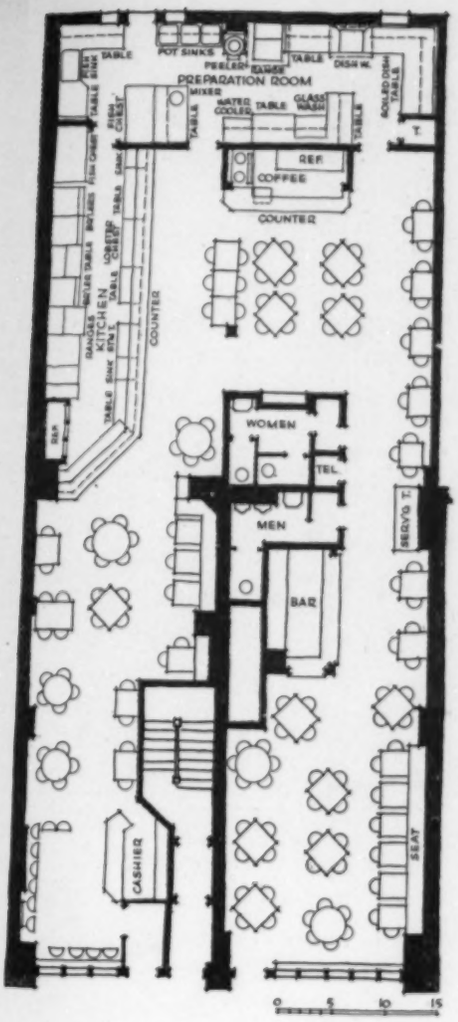
NANTUCKET AT RADIO CITY

Gloucester House, West 51st Street, New York City

Francis Keally, Architect

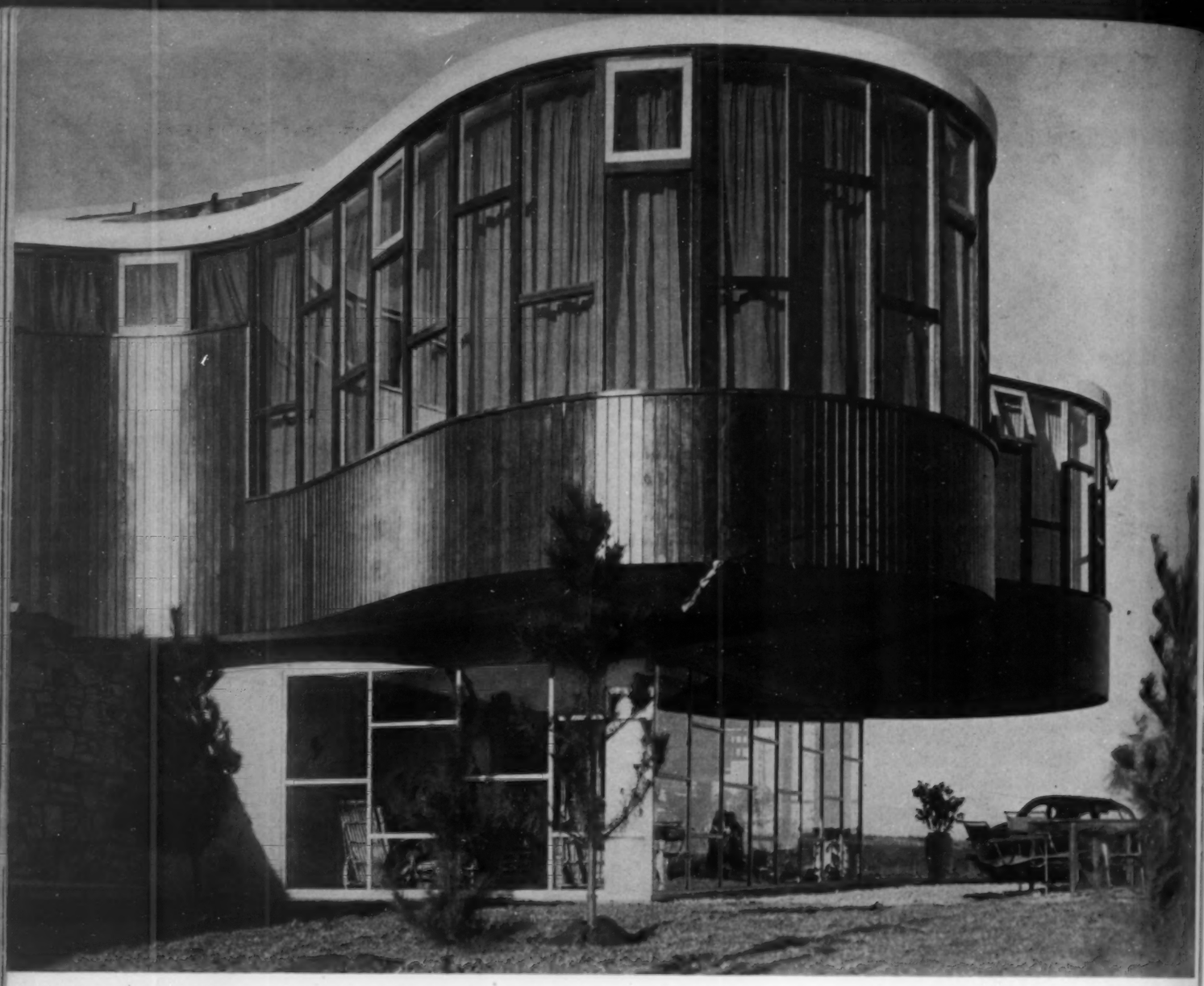
Although New York City never, in our recollection, possessed a restaurant built in the shape of an oversized concrete hat, it does boast a seafood place designed to resemble an aquarium and another with swaying portholes intended, evidently, to test the seaworthiness of its customers at critical dietetic moments. Gloucester House, by comparison, is a staid and conservative Inn. While some architects might question the validity of constructing a Nantucket seafood place at the foot of the steel and glass towers of Radio City, there are probably good and sufficient business reasons for doing just that. The architect and the owner, at any rate, assured themselves of the validity of this approach after several weeks of detailed research, observation and investigation of the restaurant situation within a radius of ten city blocks of the proposed site. What they saw convinced them that their approach was right.

As an example of restaurant-design procedure, Gloucester House is extremely interesting. Not only was the architect called in to help decide the design, character and name of the restaurant, but he also controlled to a high degree such apparent incidentals as the layout of the menu cards and of the customers' checks, and helped style the waitresses' uniforms. Whether he helped select the waitresses as well we do not know. In any case, the result of such total architect-control is a very pleasing unity that pervades the entire design of this seafood restaurant.



Existing conditions have helped to divide this restaurant into several intimate dining rooms. The efficient, handsomely tiled kitchen is visible to the customers. Lighting throughout uses filament lamps set into chandeliers constructed of cork floats (which should give a good account of themselves in a typhoon!

The white and blue of seascapes forms the basic color scheme. Leaded window-panes, neat Colonial trim, fish-net covered ceilings and recurring marine symbols (such as the lobster pattern) help create the desired atmosphere with economy and good taste.



L. Souessia Photos

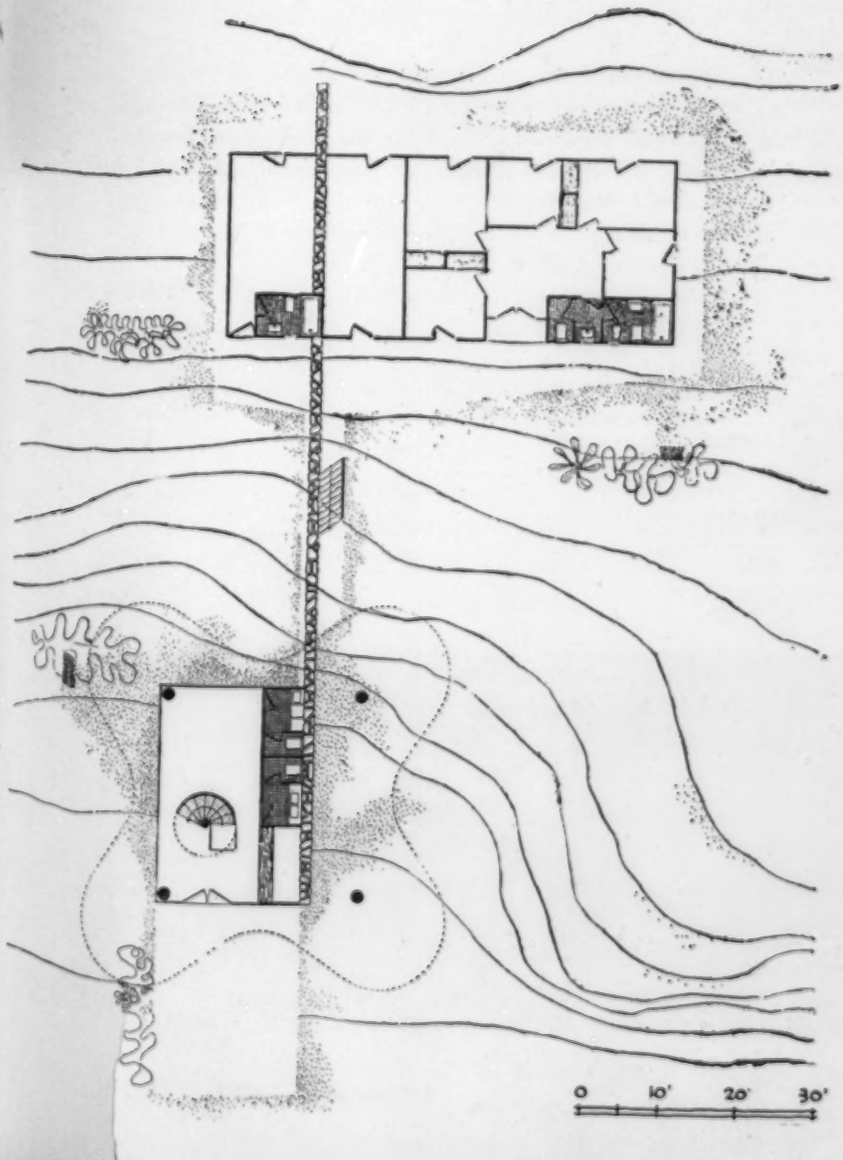
A BEACH CLUB TO SELL A VIEW

Ariston Restaurant, Mar del Plata, Argentina

Marcel Breuer, Carlos Coire and Eduardo F. Catalano, Architects

WHEN Marcel Breuer recently lectured at the University of Buenos Aires, two young Argentine architects, who had been instrumental in getting him invited to the University, asked him to associate on the design of a small drink-and-dance club to be constructed at the bathing resort of Mar del Plata for the purpose, primarily, of promoting the sale of plots in a nearby real estate development. This club was to be a small social center for that development — but for a start it was intended to serve as a kind of advertising booth as well, sufficiently attractive to bring in potential land buyers.

Located a little way inland from the bathing beach, the club was constructed in a setting of undulating dunes, just high enough to block the view of the ocean, unless one's eye-level were raised. Hence the stilts. The plan shows all of Mr. Breuer's clarity of organization and his painter-like appreciation of texture and form. Linked by a long field-stone wall, the two separate wings of the building contain, respectively, the staff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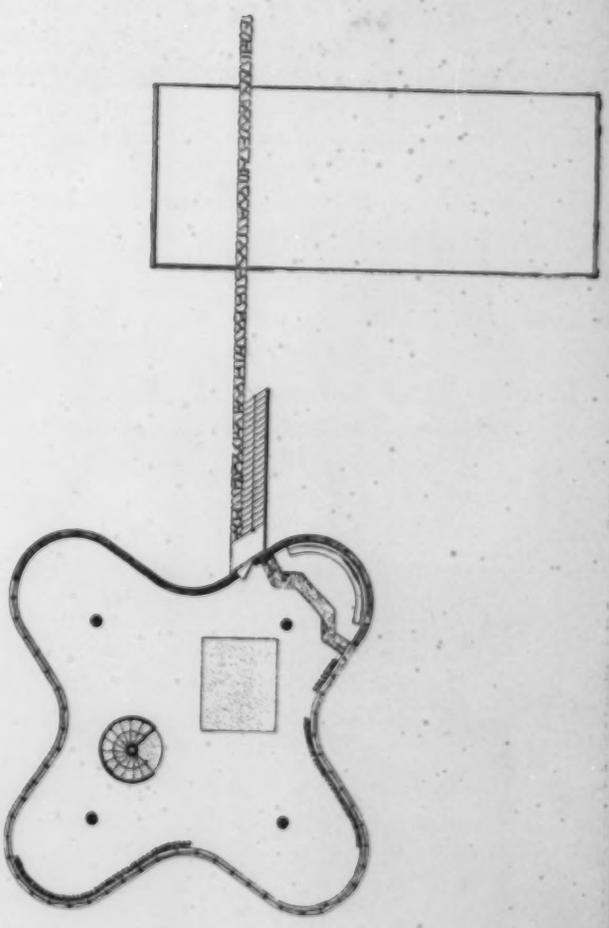
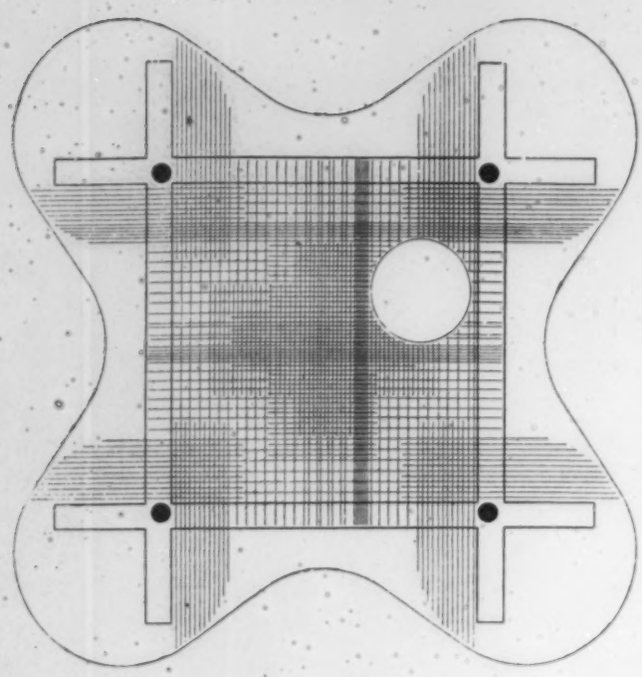
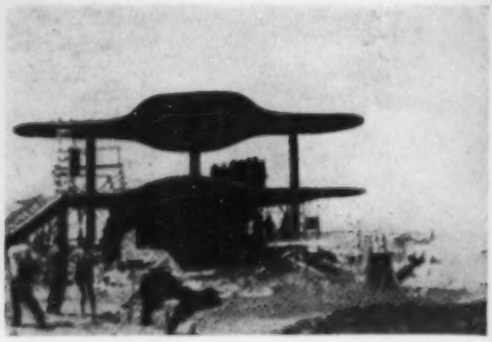
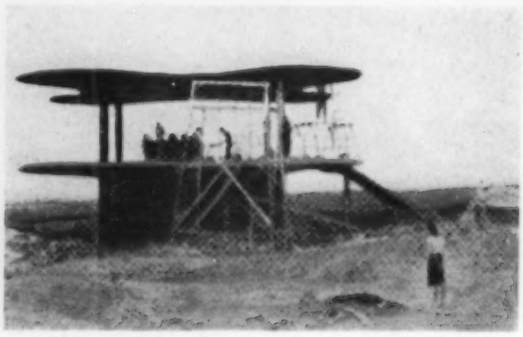
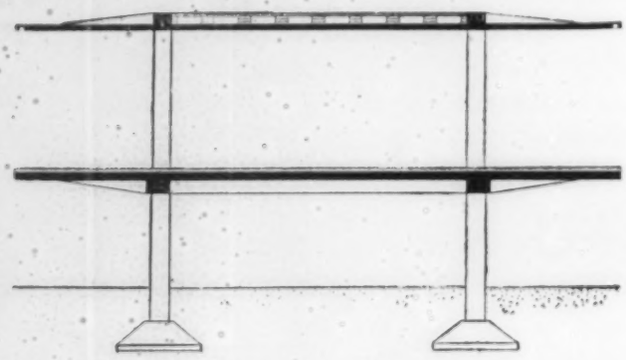






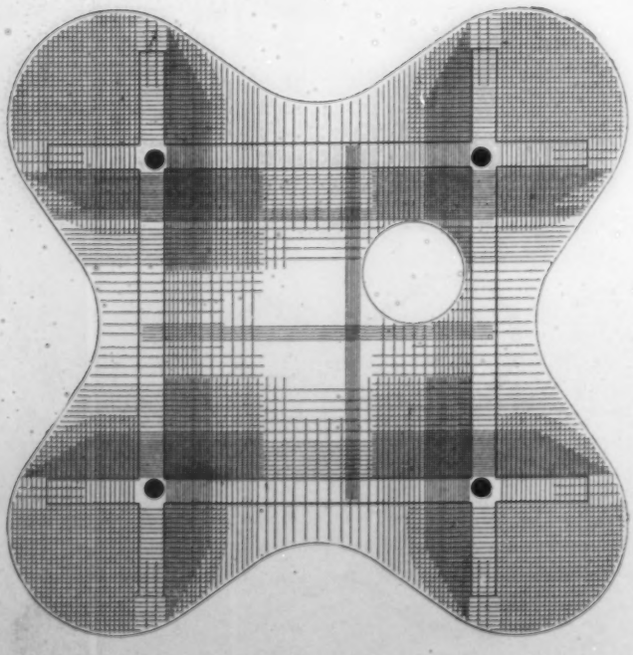
Architect's snapshots taken during construction

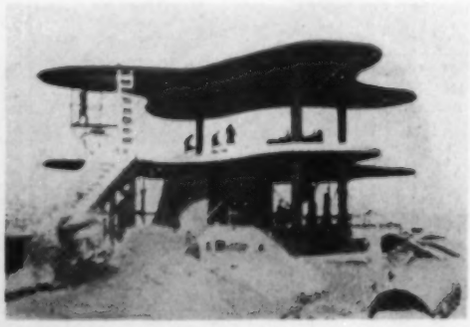




quarters and the club proper. The latter is entered on the ground level through a lobby which serves as a display and advertising area for the real estate development. An elegant spiral stair leads from this lobby to the clubroom above. Since the restaurant serves only refreshments, a small counter-type bar in one corner is all that is required.

The four-pronged plan permits each table to have window-location, and gives each window seat an arc of vision of almost 180 degrees. The playful, free-shaped clubroom is sandwiched between two two-way r.c.





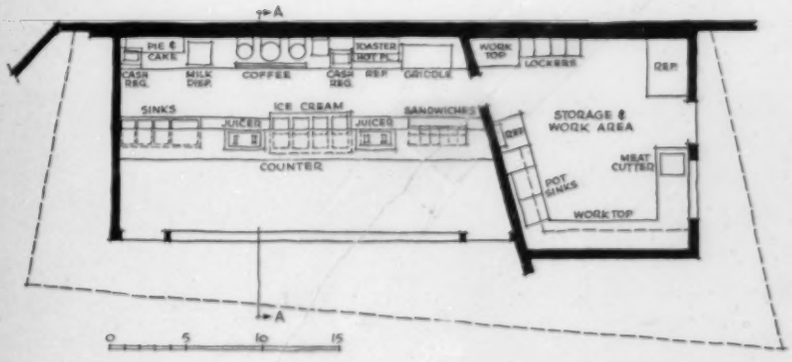
I. Sovessia Photo

slabs, the roof slab having been reversed (with the girders projecting at the *top*) to produce a flat, uninterrupted ceiling surface inside. Since snow-loads need not be considered in Argentina, the roof slab can be thinner than U.S. building codes would permit. In addition, workmanship is good and inexpensive, which means that factors of safety need not be too high. The concrete employed contains basalt and mica aggregates that give it a gray, granite-like quality. The exposed underside of the ceiling slab has been given a hand-chiselled pattern, but was left otherwise unfinished. The rectangular dance floor has a parquet surface; the rest of the floor is of red tile.

The small-scale window pattern is indicative of the high cost of glass in Argentina. The exterior walls — which carry no weight and were, therefore, treated as separate entities — consist of simple stud frame partitions covered with narrow, vertical t. & g. siding. Window frames are also of wood. At certain intervals louver-type vents alternate with the window sash. With a healthy breeze from the ocean only a few hundred feet away, this is all the ventilation that is needed.

EXISTING ARCADE
2"x10" @ 16" O.C.
2"x 8" SPIKED TO RAFTERS & OUTRIGGERS
2"x10" CONT
2"x10" OUTRIGGERS 16" O.C.
2"x 8" BRIDGING
PORCELAIN ENAMEL
8" W 24#
LOUVER
2 LAYERS 1" INSULATION BD
1/4" PRESSED WOOD
GLASS MTG.
2"x 4" CEM. PL.
2" COUNTER
3" PIPE COL.
WOOD SLAT PL.
ASPHALT TILE FLOOR & BASE
10" W 21#
8" REINF. CONC.
6" CINDERS
SECTION A-A

Ben Schnall Photos



The plan is simple, consisting of three separate elements: A stand-up counter, an open food preparation area, and an ample storage room. The splayed partition helps to enlarge the public part of the Flight Bar.

A SNACK BETWEEN LANDING AND TAKE-OFF

FLIGHT BAR, LA GUARDIA AIRPORT ***NEW YORK***

Lester C. Tichy

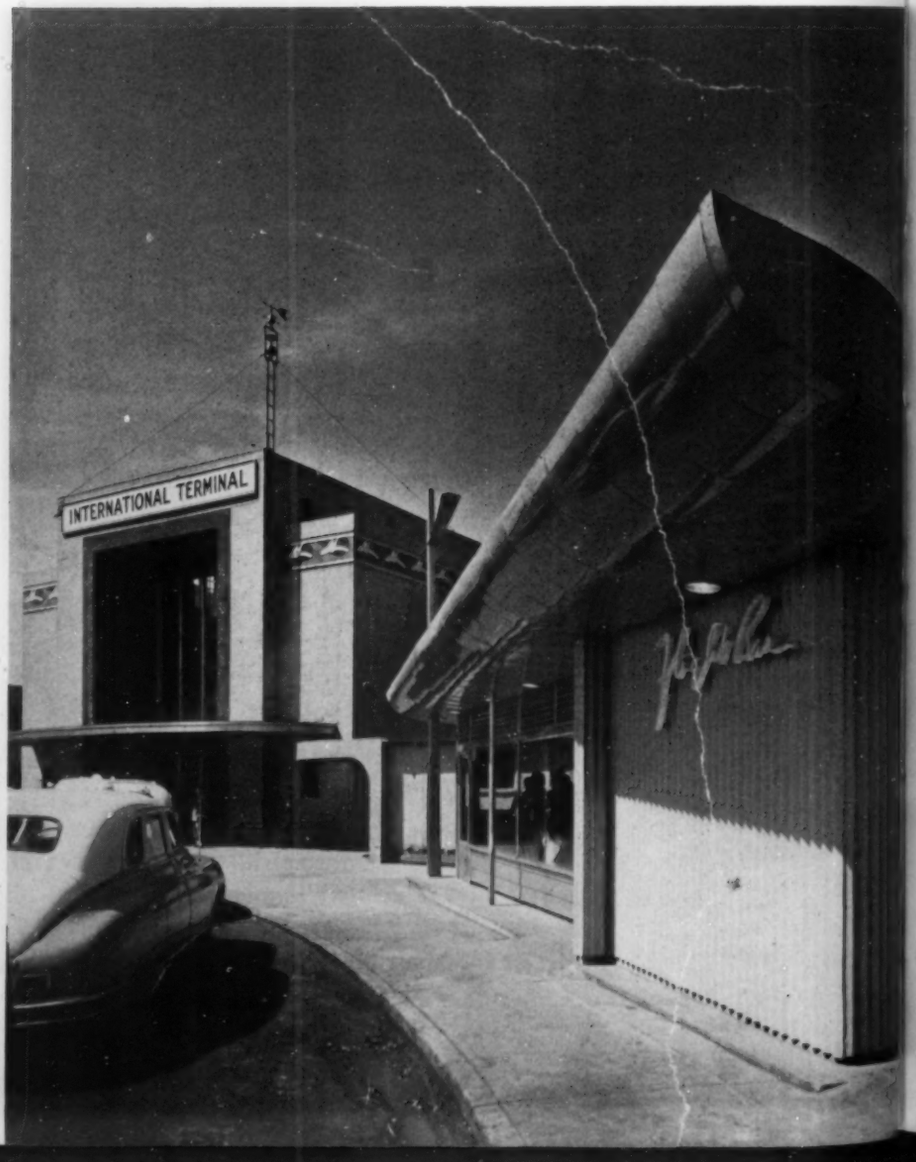
Architect

IN THIS sleek, aluminum-finished Flight-Bar at New York's La Guardia Airport, Lester Tichy has projected his successful railroad design ideas into the business of air travel. Against the heavy, rather sterile formalism of the International Terminal Building, this bright and cheerful snack bar stands out well — as clearly a part of the air age as any transatlantic Clipper circling overhead. Designed to be completely demountable, the building's footing can be cut immediately below the two wide flange sections upon which it rests, and the whole structure may then be loaded upon trucks and moved to a new location. Thus the Flight Bar is in reality almost airborne: the airplane wing type of roof, the tall mast with its fin symbolizing air currents, and the finely polished aluminum detail are all designed to emphasize its modern character.

Ben Schnall Photos

The storage room is encased in a corrugated asbestos-cement wall, while the Flight Bar itself has aluminum siding up to a low sill height, then large sheets of glass topped by continuous strips of aluminum louvers. Note the free-shaped push panel at the door

Since it is not strictly part of the International Terminal, the Flight Bar must compete with the heavy façade of the Main Building. It does this without being offensive. Its roof-line, for example, follows the general level of the Main Building's entrance canopy, and its slanted edge points in the direction of the main traffic flow. The Flight Bar was designed for the Port of New York Authority, with whose kind permission it is published here



LIGHTWEIGHT AGGREGATES WIN NEW ATTENTION

Weight-saving and insulating properties newly investigated for wide variety of concrete work

LIGHTWEIGHT aggregates have been much in the news lately, even breaking out of the confines of technical circles. They have acquired the glamorous flavor of technology, and so have appeared in general publications.

Really they are very old; lightweight aggregates have been known for as much as 50 years. What is new about them is merely success. Known most widely in certain unglamorous uses, like concrete blocks, they have recently won increasing attention in virtually all types of concrete work. In short, their oldtime virtues are suddenly being more widely appreciated. More literally, these virtues are probably a result of better manufacturing processes and control.

The West Coast seems the locale of most of the current excitement. This might be due to a natural progressiveness of the West, or perhaps to the simple fact that most of the natural deposits of lightweight aggregates are in that part of the country. Be that as it may, there are plenty of factors contributing to the current interest in light concrete.

During the war engineers began to develop a more "material conscious" attitude. Because of the high cost and scarcity of building materials for postwar construction, the trend has been toward lighter, insulating walls, floors, ceilings and roofs. Developments such as precast slabs, cast-in-place building sections and fireproof concrete for structural steel have greatly stimulated the use of lightweight aggregates. In addition the ability to save structural steel by reducing dead load has been demonstrated in several skyscrapers, some which were described in a recent article in the *Wall Street Journal*.

Finally, there is now beginning a considerable amount of research work. The Housing and Home Finance Agency conducted a manufacturer's survey in 1946 to get information on commercial sizes, weights and tests. They are now sponsoring a comprehensive test program with the idea of developing impartial engineering data to be used for concrete design.

In Los Angeles the use of lightweight aggregates in 13-story General Petroleum Building (ARCHITECTURAL RECORD, Oct., 1947) will cut the total weight by 13,100 tons, including a saving of 1,200 tons of structural steel. The structural frame system uses lightweight concrete for all floors above the first. In spite of the $61,000 higher concrete cost, the saving in structural steel alone is reported to be $180,000.

Vermiculite concrete and plaster were used in the Mercantile National Bank Building, Dallas, Texas (ARCHITECTURAL RECORD, July, 1944) for fireproofing steel framework and ceilings and as fill for cellular steel floors. The dead load was reduced by 15,634 tons, resulting in a saving of 1,880 tons of steel. (Walter W. Ahlschlager, Architect).

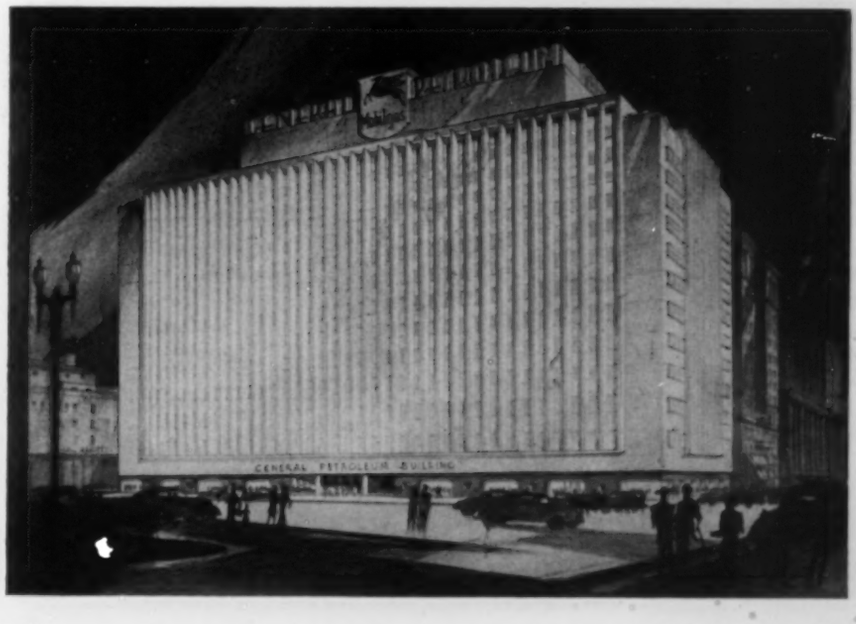
Lightweight concrete has permitted increasing the height of existing buildings which might not have been possible otherwise. An example is the Sears, Roebuck & Co. building in Los Angeles. The original building, built in 1929, and an addition, built in 1940, were both designed for three additional floors. When the company wanted to increase the height of their plant, they found that it did not have enough earthquake resistance; after the earthquake in 1931, the building code was changed three times, increasing the requirements for lateral strength. Engineers solved the problem by using lightweight concrete and by devising a system of roller bearings for the original section to protect it from lateral strain.

ADVANTAGES

Advantages resulting from the use of lightweight aggregates are:

1. Reduction of dead load saves structural steel, reduces bearing on foundations and cuts cost of concrete forms.
2. High insulating value is provided by numerous dead air spaces.
3. Rough texture of surfaces have good acoustical properties.

Use of lightweight aggregates in the 13-story General Petroleum Building in Los Angeles will cut the weight by 13,100 tons including a saving of 1,200 tons of structural steel. All concrete above the first floor is lightweight concrete, using pumice, rocklite or similar aggregates. Architects are Walter Wurdeman and Welton Becket



4. Lightweight allows more distant market and easier handling of precast slabs and blocks.

5. Lightweight plaster has less tendency to crack and its heat resistance makes it a good material for fireproofing structural steel.

DISADVANTAGES

The major disadvantages of lightweight aggregates are a result, paradoxically, of the physical qualities which make them weight-saving and good insulators.

Porosity of most aggregates requires changes in the usual formulas for water and slump and closer supervision of mixing. Very light aggregates have a tendency to float out of the mortar and some coarse-aggregate concrete mixtures require the addition of a fine aggregate like sand to prevent harsh working and serious bleeding.

As aggregates get lighter they become structurally weaker so that in order to maintain high strength the strength of the matrix must be modified by adding more cement. More cement is needed, also, to "wet" the greater aggregate surface area, due to the irregularity of the particles. Each application, however, has its own requisites which call for a compromise on strength, weight-saving and insulation.

The cost of raw aggregates is higher than for gravel, rock and sand because of small production facilities and the additional processing that is sometimes necessary.

AGGREGATE QUALIFICATIONS

According to Stuart H. Ingram*, a Pasadena, Calif. mining engineer, a lightweight aggregate, in order to hold a marketing position, should have these qualifications:

1. Be well graded as to size.
2. Have minimum number of voids to be filled with mortar.
3. Individual pieces should have compressive strength.
4. Must be firm enough to withstand handling without size breakdown.
5. Particles must bond well with cement and be inert chemically both with respect to reactions of cement and to steel reinforcing.
6. Must be unaffected by weathering or damage caused by time, moisture, insects and fungi.
7. Should be as light as possible without impairing other qualities, but to make weight saving worthwhile, the resulting concrete should not weigh more than 75 per cent of the weight of ordinary concrete. Since the aggregate comprises about 50 per cent of the usual mixes, its weight should not be more than 50 per cent of that of rock or gravel aggregates for the same volume. Grade rock, gravel aggregates weigh a little less than 100 lb. per cu. ft., thus a good lightweight aggregate should weigh less than 50 lb. per cu. ft.

Lightweight aggregates can be divided into four general classifications

1. Aggregates of volcanic origin.
2. Micaceous minerals.
3. Expanded clays and shales.
4. By-products of manufacturing processes.

VOLCANIC AGGREGATES

Members of the volcanic group are pumice, pumicite, vesicular glass and perlite. Pumice and its volcanic relatives are siliceous minerals quite similar in chemical composition but different in physical properties, manner of formation and mode of occurrence.

Pumice

Pumice is formed when lava is ejected from the core and flows. When gases are released during solidification, they form a glassy froth, honeycombed with elongated, parallel cavities.

Pumice, weighing from 25 to 60 lb. per cu. ft. when dry and graded, is well qualified as a lightweight aggregate. It is hard enough to be handled and mixed without excessive breakdown. An undesirable feature of many pumices, however, is their water absorption. Bad effects of absorption can be mitigated by wetting the aggregate before it is mixed with cement. If an exchange of water occurs between the aggregate and mortar after the concrete has been laid, loss of strength may result. Based on experience during the war with concrete ships, engineers believe that some absorbed water may be advantageous by preventing rapid drying which contributes to serious cracking.

Pumice varies in color from white-gray to yellow, red, brown or even black. There are deposits near Bishop and Inyokern, Calif., Bend, Oregon and Santa Fe, N. M. with a reported annual capacity of 376,000 tons.

Natural pumice is used in southern Italy between asphalt coatings to insulate floors and roofs. In Germany it has been used to manufacture slabs, hollow blocks and tile flooring. Claimed advantages are lightness, high insulation quality, incombustibility and a surface texture to which plaster readily adheres.

Pumicite

Pumicite is an accumulation of finely divided particles blown from volcanos and classified to some extent by the wind. The light particles are highly irregular in shape, contain a high percentage of voids and are usually soft and friable. Pumicite, volcanic ash and tuff (mixture of pumice and pumicite) have been used as a cement admixture, but no uses as a lightweight aggregate have been reported.

Vesicular Glass

Vesicular glass is similar to, but has larger pores than pumice. As pores become larger, there is usually more continuity between holes or less sealed off porosity, yielding poor aggregate. When vesicular glass can be mined and then sawed into blocks or other shapes, it is said to make an excellent lightweight construction material.

Perlite

Nearer the volcano core than the foregoing materials are the massive glasses such as perlite, obsidian and pitchstone. They expand greatly when subjected to properly controlled heat because of entrapped pockets of gas. Some varieties have a foam-like expansion while others distinctly "explode." The foam types contain innumerable tiny bubbles, each with an extremely thin outer wall. Some particles may be easily crushed and powdered.

Perlite is composed of stable silicates, is inert and thus durable for use as a lightweight aggregate or for insulation. Its latitude of use as a lightweight aggregate depends on how physical properties other than lightness are controlled in the plant.

Besides its friability, two other disadvantages of perlite as an aggregate are its small particle size and extreme lightness. The small particle size gives a large surface area to be "wetted" by the mortar, requiring more cement; the extreme lightness increases the tendency to float out of the mortar.

After expansion, perlite has an average weight of 8 to 16 lb. per cu. ft. and would probably be useful where maximum strength is not required, as in precast slabs and blocks and in floor fill, fireproofing and plaster.

MICACEOUS MINERAL

Vermiculite is a micaceous mineral which expands on application of heat to as much as 30 times its original volume. Dried, ground ore is subjected to about 1,800 degrees heat for four to eight seconds, after which it weighs only 6 to 12 lb. per cu. ft.

Vermiculite was first marketed from a Colorado deposit in 1915. It is also mined in North Carolina, but the most extensively worked deposit is near Libby, Montana. The raw ore is shipped

*"Lightweight Aggregates in the Southwest", Stuart H. Ingram, Mining Technology, Sept. 1947.

to plants in various parts of the country where it is expanded and marketed.

Until 1940, the chief use was as a loose-fill insulation, but more recently it has been used as an aggregate in concrete for fireproofing steel, for floor and roof fill, and for acoustic and fireproof plaster.

CLAY, SHALE AGGREGATE

Lightweight aggregates from clays and shales require heating the material in a kiln to a temperature near its fusion point. The material softens and coalesces to a sticky mass; escaping gases are trapped, forming cellular structures and expanding the volume of the material about 50 per cent.

The crushing and firing operations are varied with different processes. In some the material is fired to a clinker, then crushed and sized; the process is often reversed with the crushing operation first. One of the best aggregates is said to result from a double-firing process where the clay or shale is first crushed and fired, the resulting porosity being sealed by dusting with a fine siliceous material and refiring almost to fusion.

Airox

Produced from oil-bearing shales and impure diatomites (siliceous shells), *Airox* utilizes the double-firing process. An outer covering seals the porosity, and the resultant product resembles gravel in appearance. The pieces are round and smooth with sizes from pea gravel up to 1 in. or 1¼ in.

Rocklite

Reported as one of the best aggregates of the clay-shale type, *Rocklite* uses a fine, compact, uniform blue shale. The shale is crushed to three different sizes; each is fired separately in the kiln at a temperature of 2000 degrees. The pieces puff up when heated and are discharged with a tight skin that seals their porosity. When placed in water, the pieces will float for days.

Rocklite varies in weight from 40 to 50 lb. per cu. ft., has high strength and is resistant to damage by handling. A mountain near Ventura, Calif. contains the blue shale used, and deposits are believed to exist in many parts of the country.

Diatomite

Diatomite in the pure state is composed of deposits of siliceous shells of microscopic aquatic plants (diatoms). Pure diatomite weighs about 28 lb. per cu. ft., but mixtures of clay, sand and gravel increases the weight. The pure deposits are used principally for insulation and filter media where they get higher prices than possible with aggregate. It is a matter of conjecture whether impure diatomites could be processed with the double firing method to produce a good aggregate. Pure diatomite is light and chemically inert, but soft and friable. Large deposits are found in California, Oregon, Nevada, Washington, Maryland and Florida.

BY-PRODUCT AGGREGATES

Expanded Slag

Expanded or "foamed" slags are made by treating molten blast furnace slag with controlled quantities of water or steam. Some slags are expanded in pits in the ground; others are made in machines. Close control of water or steam is very important because too much granulates the slag, yielding soft, friable particles; too little gives a heavy aggregate. Excellent aggregates can be obtained by regulating the shape, porosity and thickness of outer skin.

Foamed slag has been used in Germany for many years in precast blocks, cast-in-place walls of houses and for panel filling of steel-framed buildings.

Cinders

Cinders, resulting from the combustion of coal, are composed of the ash components of the coal along with various quantities of unburned or partially burned combustible matter. Some cinder aggregates containing combustible matter have caused deleterious expansion of concrete in which they have been used. Cinders containing a minimum amount of combustible material are satisfactory for use in concrete but are not particularly weight saving. Lightweight cinders often have unsound physical and chemical properties.

Fibers

Comprehensive laboratory tests were conducted at the University of Michigan on waste industrial and farm fibers for use with a binder of Portland cement and a chemical admix to be formed by machine into fire and weather resisting boards, insulative panels and floor, roof coverings. The research was done by Corwin D. Wilson at the request of the National Housing Agency with funds provided by the Office of Production Research and Development of the War Production Board.

Approximately 8,000 specimens from 225 different materials showed that a large number of farm, forest, industrial and home wastes might be used in such compositions. A solidified "foam" was developed weighing less than cork. Many of the compositions were found crack- and fire-resistant and suited to machine fabrication.

Besides uses for building board and panels, laboratory tests disclosed that many fibers were suitable for use as shingles and for more dense fibers in floor tile, water pipe and other commercial products requiring a strong, cheap, rigidly-setting plastic composition.

Mixes were found in the weight range of 70 to 80 lb. per cu. ft. to have compressive strengths of 3000 to 4000 psi and tensile strengths of 600 to 750 psi. In the weight range of 40 to 50 lb. per cu. ft., compressive strengths were about 2000 psi with tensile strength of 600 psi.

Thermal conductivities were low and the alkalinity of matrices used was believed high enough to prevent destruction by rats and termites.

Best mixtures were obtained by using mixtures of fine and coarse fibers with high early strength cement and an admix which apparently caused the cement matrix to grip the fibers more closely than otherwise possible.

FUTURE RESEARCH

Housing and Home Finance Agency is sponsoring a research program on monolithic concrete utilizing lightweight aggregate, believing that the lack of reliable engineering data concerning these materials has limited their wider use in house construction.

Research work is being conducted with preliminary tests to determine density, strength and insulation properties followed by structural tests. The test program was initiated with the aim of developing engineering data which will make possible the application of rational analysis to lightweight concrete structures.

Weight of Aggregate and Concrete by Type of Aggregate

Type of Aggregate	Aggregate Weight per Cubic Foot	Weight per Cubic Foot of Concrete Using Aggregate
	Pounds	*Pounds*
Gravel	120	150
Sand	90–100	150
Crushed Stone	100	145
Crushed Bank Slag	80	110–130
Haydite (Expanded Clay, shale)	40–60	100–120
Foamed Slag	40–60	90–100
Cinders	40–50 (plus sand)	110–115
Pumice	30–60	60–90
Diatomite	28–40	55–70
Perlite	6–16	40–65
Vermiculite	6–10	25–50

Table from HHFA Survey, "Lightweight Aggregates for Concrete."

INDOOR-OUTDOOR PLANTING BEDS

For Construction Details see
TIME-SAVER STANDARDS
pp. 153 and 155

By Henry B. Aul, Landscape Architect

INDOOR planting beds have been enlivening more and more of the contemporary house plans. As one who has long plowed this particular furrow, I must begin by expressing hearty approval for the idea of bringing the garden inside. It is certainly a logical concomitant of bringing the view inside, of integrating indoor and outdoor living, of making the house a natural outgrowth of its site.

If, at the same time, some of the plans have a slightly experimental look, there is nothing to be deplored in that. The problems of indoor planting, both architectural and floricultural, are not so involved that the basic idea need suffer from improper handling.

Purposes of Planting

Indoor planting beds might be employed in a great many different varieties, for many different purposes. Flower beds that seem to extend from the outdoors right through a glass wall into the house establish a strong tie between the house and its site. Or, where windows are large and give an unobstructed view of the garden or landscape, the outdoor-indoor planting frames the view, or furnishes the foreground for it.

On the other hand, a window that overlooks a not too desirable view can be made a center of attraction not only with plantings about its base, but also with a tracery of vines across its face that will screen the less attractive scene outdoors.

Windows away from the garden side of the house, in the kitchen, bedrooms or hobby room, can be equipped to support plant growth, and thus introduce foliage and flowers in all parts of the house.

The entrance, regardless of its exposure, can be made a more cheerful spot to welcome guests.

Frequently it is possible to arrange indoor plantings which will form a partial screen or partition to separate one room from another.

Plants in the outdoor-indoor bed are staged where they are brought into unmistakable prominence. They are close at hand for the pleasure of the gardener and others and are convenient to work among. Since in most instances the planting is connected with large window areas, it is an assured way to have and enjoy plants in the house throughout the year.

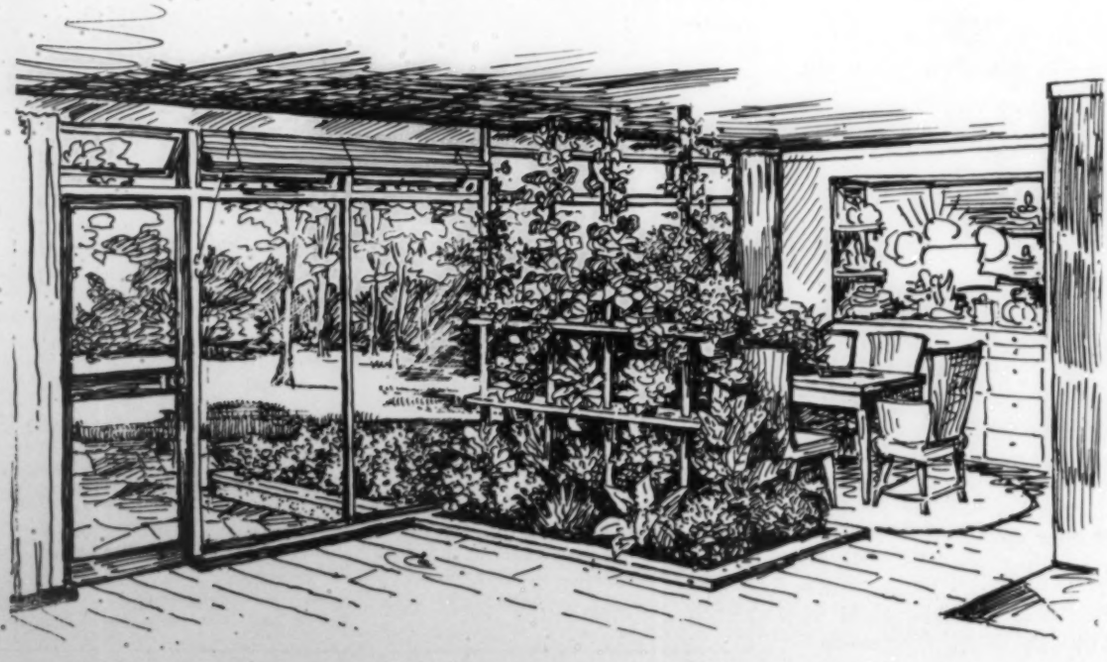
Principles of Planting

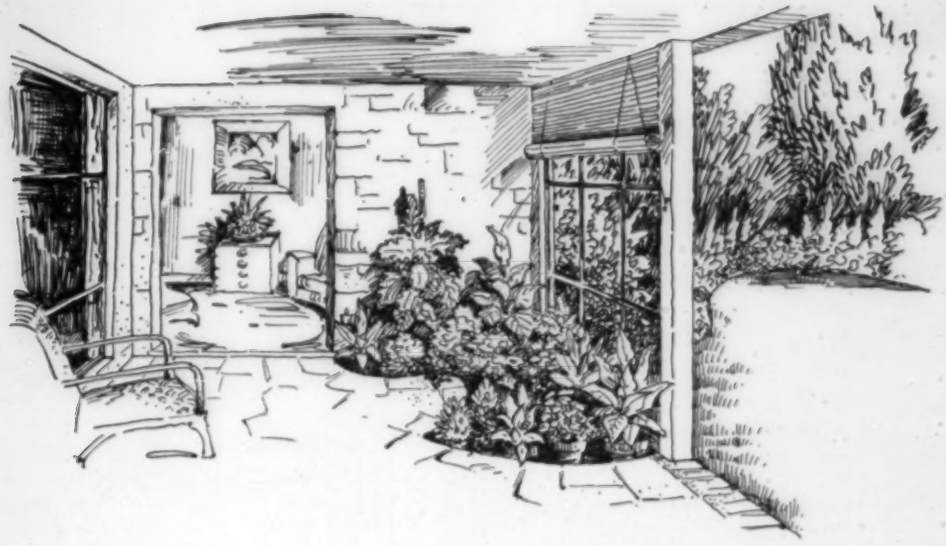
To gain the closest tie between the outdoor and indoor plantings, it is best to have the plants arranged at approximately the same level throughout; and, if there is a curb or coping around the planting bed, have it contiguous. This means that the curb may be only a few inches above the floor and, depending on the distance of the terrace or porch below the floor level, will be six or more inches high around the outdoor planting.

In locations where, due to the exposure or the shelter of a porch roof or roof overhang, surface drainage is not a problem, it may be desirable to have the house floor and terrace floor at the same level, and the planting set into or raised above the floor level the same distance indoors and out.

Different growing conditions indoors and outdoors preclude the possibility

An indoor-outdoor, floor-level planting bed combined with a trellis for potted vines, to form a partition of plants between living and dining rooms. Flowers in pots can be enjoyed from either side, or from the terrace. Flowers may be changed with the seasons, or according to conditions of bloom. Upper sash provide ventilation. Roof overhang plus slat roller shades control sunlight around planting





Living porch planting bed in a corner sheltered from wind by glass screen. Soil bed might be heated by electric cable on a sub-soil thermostat. Plants may be grown directly in soil, or in pots on a layer of gravel

of using identical plant materials to gain exact continuity between the two areas. Besides, the seasonable change in weather in most parts of the country would upset such a planting plan, even if it were desirable. Considering the value of variety in most plantings and to most plantsmen, the idea is not practical.

Bench or table height plantings raised 24 to 30 inches above the floor can be continued from indoors out or vice-versa, just the same as floor level plantings. The bench-high planting has the advantage of bringing the plants up where they may be worked among conveniently and inspected and admired close at hand. The plant bench can be combined with a work bench in a hobby room or kitchen or between the indoor planting and a sheltered terrace work space that would please all gardeners.

Planning the Planting

It might seem that the easiest method to handle plants, both indoors and out, would be to set them directly in large pockets or beds of soil. It is possible to do this where the floor of the house is a concrete slab on the ground or close to the ground. But for the most satisfactory management of plants indoors, they should be grown and kept in pots. The pots are easily arranged or re-arranged in the planting bed according to their condition, size and appearance.

In pots, they can be shifted or turned to give them light on all sides, removed for treatment against disease or insect injury, for feeding and other handling. It is a method well worth considering for the terrace or other outdoor portions of the planting.

Indoors, the pots are placed on a one- to two-inch drainage base of fine washed gravel in the bottom of a lead, zinc or copper pan built to the shape of the planting bed. The metal pan forms an assured moisture barrier between the plants and the floor or walls.

An alternate plan is to fill the pan with peat moss or expanded mica in which to plunge and conceal the pots. This would be the method to follow when using potted plants outdoors. Of course, no metal pan is needed outdoors. For indoor beds, these pans should be from eight to ten inches deep and of a size that will permit removing them for cleaning once or twice a year.

Moisture Control

Except in unusually large installations, there seems to be little need to consider facilities for draining the pan-lined indoor planting bed. Where neces-

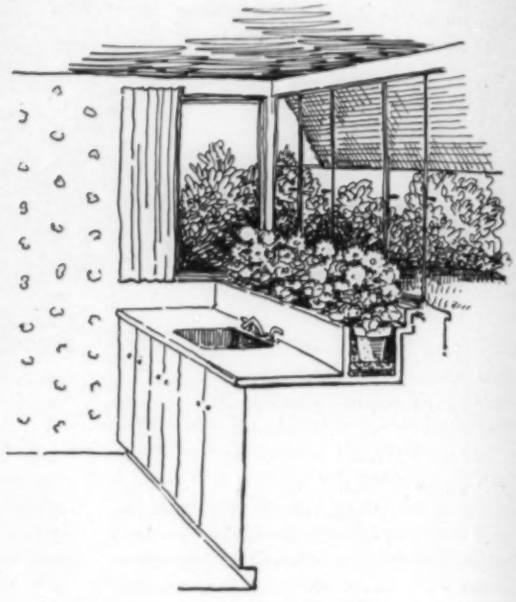
The entrance is a most logical place to gain the invitation of plants. Plants outdoors might be dwarf evergreens or ground covers. Plants indoors might be in a bed of soil, or might be in pots on shelves to screen hall

sary, a small sized pipe or copper tube can be led from the bottom of the pan to the basement drain, crawl space or through a weep hole in the outside wall.

Outdoor beds, filled with a 10- to 12-inch top layer of loam, humus and sand, are given a drainage base of coarse cinders or gravel with one or more lines of four-inch open joint land tile led off to a storm sewer or dry well. The surface of the bed is kept below the coping and adjacent windowsills, and is pitched away from windows and house wall at least one quarter inch to each running foot. Outdoor beds are surface mulched with peat moss or expanded mica to reduce mud splash on walls or windows, and to retain moisture in the soil around the plants.

Planting beds, set in flagstone, tile or other masonry floors, present little danger of moisture damage, and so may or need not be curbed, depending on the requirements of the design. On the other hand, plantings in proximity to wood framing, flooring and trim need to be separated from them by the metal pan liner and a curb of brick, stone, tile or slate, redwood, cypress or other moisture resistant wood. The curbing generally conceals the upper edge of the pan and the concrete base or framework of wood in which the pan is set. The top of the curb is a handy place to display small potted plants for special attention.

Windows connected with indoor-outdoor planting should, in most cases, be set in metal sash. They can be double glazed or single glazed with provision for winter storm sash. This will reduce perceptibly the amount of condensation and ice that forms during winter weather. Bottom sash should preferably be fixed with top louvers or movable sash to provide top ventilation not unlike that in a greenhouse. Movable sash at the sides of the planting, and doors nearby, will aid general ventilation. Under certain conditions ceiling vents to exhaust fans are used.



What better place for the cheer of flowers than right behind the kitchen sink? Pots are set on a gravel base in a metal pan, which is removable. Sash are fixed directly behind sink, with out-swinging casements at side

Sun Control

Provision must be made to shade windows exposed to full or nearly full sunlight. The roof over a covered terrace or porch and the properly designed roof overhang or sun visor of the solar house furnish adequate shade. They also lessen the problem of splash and surface drainage around outdoor planting beds.

Louver-type insect screens, slat, roller shades, venetian blinds, slat and canvas awnings are other methods of shading the window. Most plantings do not crowd the window on the inside so closely that draw curtains cannot be used. They are particularly attractive, not only for shade but to shut out the night and make a colorful background for the indoor planting at that time.

In some indoor plantings, not shade but the problem of sufficient light is uppermost. This is solved with flood or other types of incandescent lamps placed above the planting and turned on regularly when natural light is lacking.

Adequate heat is generally available from the regular house system. Water splashed over the gravel drainage material on which the pots are placed contributes humidity to counteract too much heat. Special plantings in sheltered porch or terrace floors can be kept going a good portion of the year with an electric heating cable such as is used to heat the soil in garden hot beds.

A bay window can easily be transformed into a small conservatory, with either soil-filled elevated beds or metal pans for pots. If door leads to terrace or garden, the indoor beds might be continued as raised beds outside. Out-swinging casements ventilate the bay, venetian blinds shade it, and full-length curtains can be pulled across the whole opening at night. Beds might be heated by an electric cable

For Construction Details see
TIME-SAVER STANDARDS
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COMMUNITY HOMES EXHIBIT

Featured in the four demonstration homes of the Community Homes Exhibit in Hartford, Conn., is the design of electrical appliances, lighting and wiring devices as an integral part of the structure.

The homes, designed to meet the living needs of families in four different income groups, are called Thrift, Budget, Ideal and DeLuxe. Each represents a different degree of electrical living which includes basic wiring, wiring devices, switches, lighting, and kitchen and laundry planning and were developed as the result of research by the Home Economics Institute and Better Homes Bureau of Westinghouse.

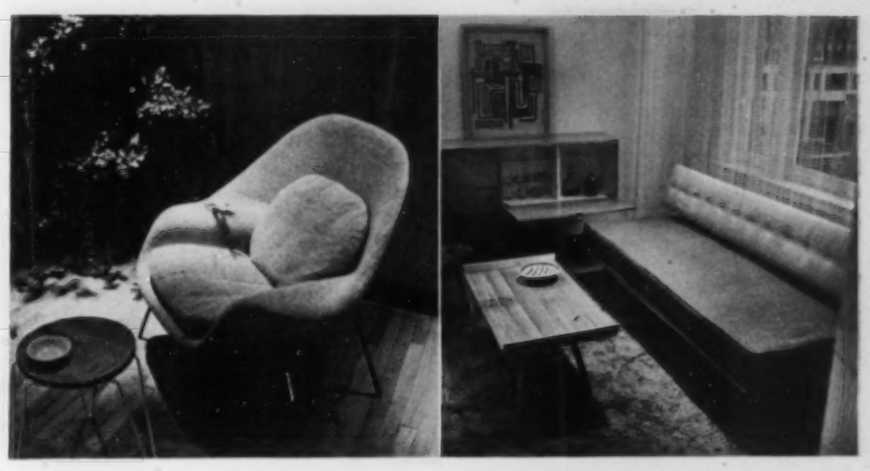
Electrical appliances in the Thrift home include a seven cubic-foot standard refrigerator, economy-style one oven range, kitchen ventilating fan, automatic clothes washer, ironer and electric water heater. A broken "L" type of layout is used to leave ample dining space

"Ideal" house in Community Homes Exhibit was designed by Royal Barry Wills with Carr and Cunningham, coordinators

in the 10 ft. by 12 ft. kitchen. A total of 50 electrical outlets including switches, lights and convenience outlets are part of the wiring system. The house is lighted entirely by incandescent lamps other than two kitchen cabinets which are equipped with fluorescent lamps.

A special feature of the Budget house is an installation of *Sterilamps* in the forced air heating system which are used to kill airborne bacteria. Another feature is the auxiliary heating in the bathroom provided by a built-in electric heater. Kitchen work areas are illuminated by fluorescent lighting. There are a total of 87 electrical outlets.

In addition to larger kitchen equipment and a garbage disposer, the Ideal house makes wider use of fluorescent lighting. The dining room is lighted by fluorescent units concealed in coves on



Easy chair designed by Eero Saarinen and a daybed by Richard Stein displayed in Hans Knoll's New York City showroom provide for more complete relaxation and comfort

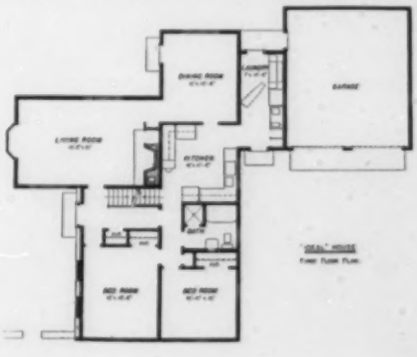
opposite walls of the room and the dining table is highlighted by a recessed unit in the ceiling. Fluorescent lighting is also used in the laundry, over the kitchen work counter, in the bath and over the work bench in the basement. Three-way switches are provided for convenience; 123 outlets are used.

Electrical equipment installed in the DeLuxe home not used in the others are an automatic clothes dryer, home freezer located in the basement, *Precipitron* air cleaner, a sunlamp permanently installed over the bathroom mirror, almost exclusive use of fluorescent lights and mercury "silent" switches used throughout. Auxiliary electric heating is provided in the bathroom and dressing room. The house contains a total of 163 electric outlets.

The houses in the exhibit are equipped with automatic circuit breakers located conveniently throughout the house in place of the single fuse box commonly located in the basement.

Royal Barry Wills designed each of the new homes to fit the surrounding locale. Carr and Cunningham served as coordinating architects. Westinghouse Electric Corp., 306 Fourth Ave., Pittsburgh 30, Pa.

Floor plan of "Ideal" house; electrical system is integrated with the structure



FURNITURE FOR RELAXATION

Currently on display in Hans Knoll's New York City showroom are three pieces of contemporary furniture which emphasize the trend of designing for relaxation and comfort. An easy chair by Eero Saarinen and a daybed by Richard Stein are among the new models being shown, and also a "Hardoy" chair, which is a revival of the piece originally designed in Italy for use in hot climates.

The Saarinen chair, No. 70, has an inner frame of plastic covered with *Restfoam;* the two loose cushions are filled with down. The outer metal frame has a baked enamel finish.

The daybed utilizes a cam mechanism which allows the seat to be in a sloping position for comfort when used as a sofa and raises the seat to a level position when the back is lowered to transform it into a bed.

"Hardoy" chairs consist of fabric and leather covers which slip over a metal framework. Covers are made of canvas in a variety of colors and natural leather; the framework comes in flat black and flat white finishes. Knoll Associates, Inc., 601 Madison Ave., New York 22.

COLORED CONCRETE

A carbon black dispersion for darkening air entrained concrete has been developed which is said to eliminate scaling that sometimes occurs when ordinary dispersions are used.

The new compound, added directly to the concrete mix, is especially applicable for decorative treatment of sidewalks and for eliminating glare from sidewalks and highways. Shades from light gray to black can be obtained by varying the quantity of coloring agent used. A. C. Horn Co., Inc., 43-36 10th St., Long Island City 1, N. Y.

(*Continued on page 178*)

MANUFACTURERS' LITERATURE

Lighting

Plan-O-Lite Layouts. Portfolio of layouts and engineering data for eight actual installations of Frink Lighting equipment, all in blueprint form. Photographs of the installations are included plus a discussion of the lighting problem and the solution for each. The Frink Corp., Bridge Plaza North, Long Island City 1, N. Y.*

Commercial Lighting Units by Colovolt, the Generaliner. Catalog describing a newly designed fixture for use with *Colovolt* cold cathode lamps. A portion of the literature gives lighting application data, including room index and utilization. 4 pp., illus. General Luminescent Corp., 732 S. Federal St., Chicago 5, Ill.

Mitchell Pocket Catalog No. 325. Presents complete line of commercial, industrial, and residential lighting fixtures in condensed form. Complete specifications, price information and accessories are shown. 28 pp., illus. Mitchell Mfg. Co., Dept. P. R., 2525 Clybourn Ave., Chicago 14, Ill.

Vibration Control

Armstrong's Vibracork. Describes the use of Standard and Heavy Density Vibracork for economical vibration control. Featured are drawings of application methods developed to isolate machines effectively under different installation conditions. Complete specifications are listed. 4 pp., illus. The Korfund Co., 48–65 32nd Place, Long Island City 1, N. Y.

Washrooms

Scott Washroom Advisory Service. Detailed plans for washrooms, locker rooms, shower rooms and lounge facilities comprise this booklet showing designs for efficiency, ease of maintenance and service. Plans were prepared by James S. Hatfield, A.I.A., consultant to the Scott Company. 40 pp., illus., Scott Paper Co., Chester, Pa.*

Trussed Rafters

(1) Teco Trussed Rafters, (2) For Section 608 FHA Insured Apartments Use Clear Span, All-Wood Teco Trussed Rafters. Booklets describe use of wooden rafters for fast construction and added strength. Rafters are said to transfer roof, ceiling loads to outside walls, eliminating need for interior bearing walls. Timber Engineering Co., 1319 18th St., N. W., Washington, D. C.

*Other product information in Sweet's File 1948.

Marble

Marble Forecast 1948–1949. Booklet describes varieties, colors and classifications of foreign and domestic marbles that are available for immediate installation. Listed are member companies of the Marble Institute which can provide information, samples, service and estimates on marble. 8 pp. R. Shawhan, R. A., Managing Director, Marble Institute of America, Inc., 108 Forster Ave., Mount Vernon, N. Y.

Heating Controls

Sarcotherm Weather Control for Hot Water and Radiant Heating. Included in this bulletin is a semi-technical discussion of "Comfort Control for Hot Water and Radiant Heating" together with typical installation diagrams of heating systems using the various types of Sarcotherm controls. A graph is given for sizing the Sarcotherm valve. Other accessories are shown and specifications listed. 20 pp., illus. Sarcotherm Controls Inc., Suite 2922, Empire State Bldg., New York 1, N. Y.

Steel Windows and Doors

Bayley Windows, Doors, Operators in the New Modular Sizes. Modular design for windows is explained. Special features are shown and diagrams given for architectural projected windows, commercial projected windows, pivoted windows, guard windows, psychiatric windows, window operators and industrial doors. 36 pp., illus. The William C. Bayley Co., Springfield 99, Ohio.

Unit Heaters

Verti-Flow Unit Heaters. Catalog describing new line of circular overhead unit heaters with diagrams and performance data. 16 pp., illus. Young Radiator Co., Racine, Wis.*

Mercury Switches

Mercury Switch Manual. Shows how switches are designed and made and how they are used for many switching operations where space requirements, dirt-free and frequent operation are said to make the mercury switches better suited than mechanical or electrical switches. A chart showing the best methods of selecting switches for specific electrical applications is given. Specifications are listed for more than 60 different types. Specialties Division, Minneapolis Honeywell Regulator Co., Minneapolis, Minn.*

Boilers

International Water Tube Steel Heating Boilers, Type C. Construction details, method of operation and specifications are given for oil, gas or coal fired boilers. These boilers are designed for apartment buildings, office buildings, hotels, industrial plants and for low pressure process steam requirements. 8 pp., illus. The International Boiler Works Co., East Stroudsburg, Pa.*

Air Filters

Bulletin SIF. Describes complete line of Staynew dry-type intake air filters for all types of air compressors, diesel and gas engines, blowers, motors and generators. The various filters included are silencer models, regular dry-type and breather filters. 8 pp., illus. Dollinger Corp., Rochester 3, N. Y.

Paints

How to Choose and Use Paint. Booklet describes types of paints required for various surfaces, preparation of surfaces before painting and step-by-step instructions for applying paint. A handy chart shows the amount of paint required for a given job. A convenient indexing arrangement is provided for quick selection of sections of the booklet dealing with preparation and painting interior and exterior building surfaces, furniture etc. 20 pp. M. J. Merkin Paint Co., Inc., 1441 Broadway, New York 18, N. Y.*

Devoe Painting Guide. Separate, well indexed, sections of this guide deal with proper use of paint for finishing interior and exterior surfaces of wood, masonry, metal and compositions such as asphalt and cork. An estimating procedure is included and many helpful tips are given in the miscellaneous section. 40 pp., illus. Devoe & Raynolds Co., Inc., 44 St. & 1st Ave., New York 17, N. Y.* *50 cents.*

Counter, Sink Tops

Sherburne Counter & Sink Tops. Data on standard and custom-built counter and sink tops includes methods of measuring and ordering as well as installation hints. Descriptions and specifications, along with drawings, are presented for these coverings available in either linoleum or decorative plastic work surfaces. Technical Appliance Corp., Sherburne, N. Y.

Electrical Distribution

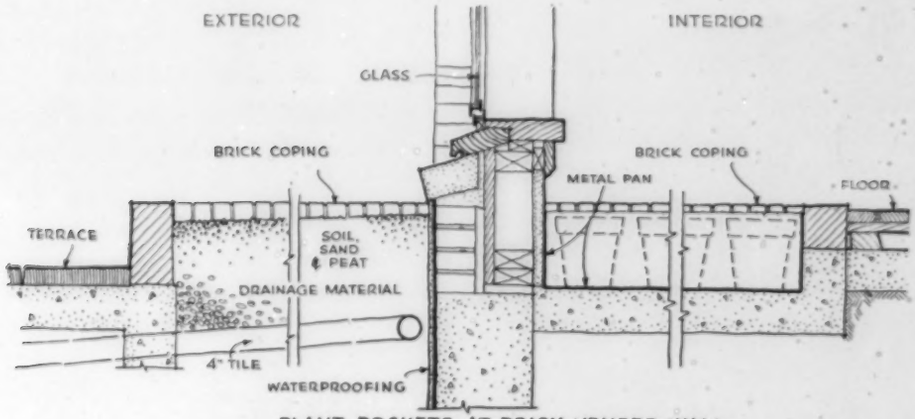
Busduct Engineering Data (Bulletin No. 101). Pictures various industrial applications of *Busduct* feeder systems together with charts and diagrams which give voltage drop and other pertinent engineering data. Specifications and electrical ratings are covered. 32 pp., illus. Frank Adam Electric Co., P. O. Box 357, St. Louis, Mo.*

(Continued on page 190)

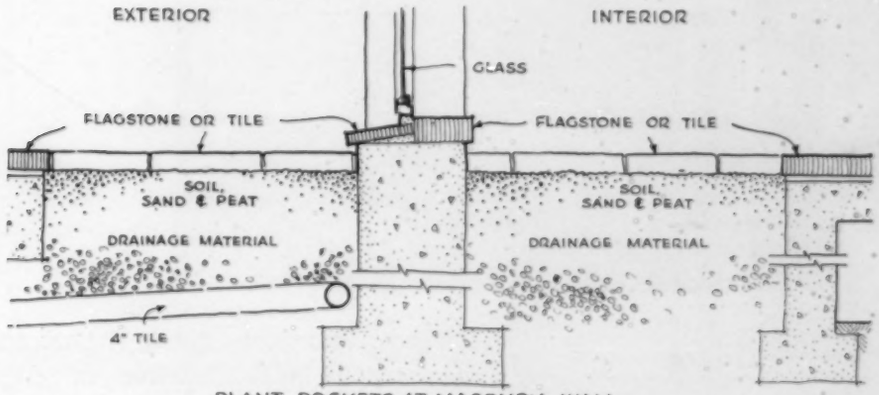
INDOOR-OUTDOOR PLANTING BEDS, Construction Details

By Henry B. Aul, Landscape Architect

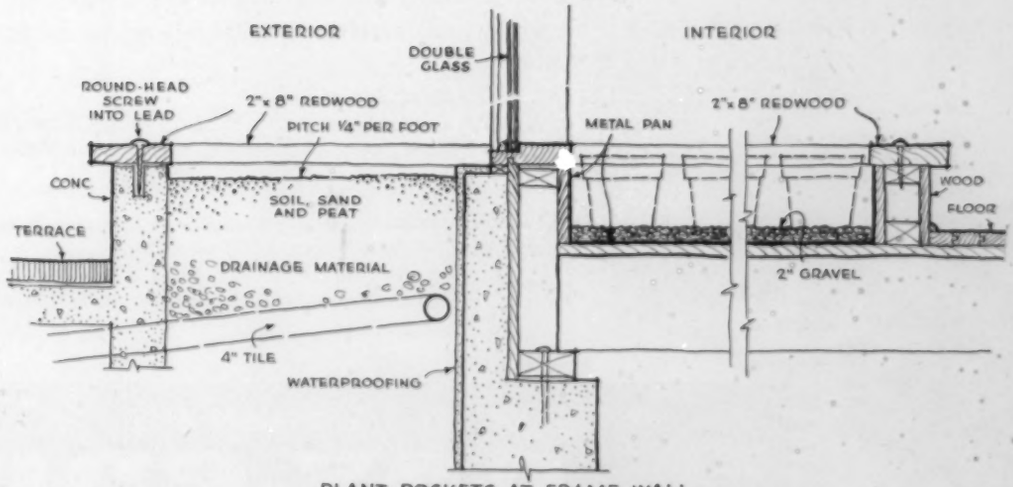
(Continued from page 148)



PLANT POCKETS AT BRICK VENEER WALL



PLANT POCKETS AT MASONRY WALL

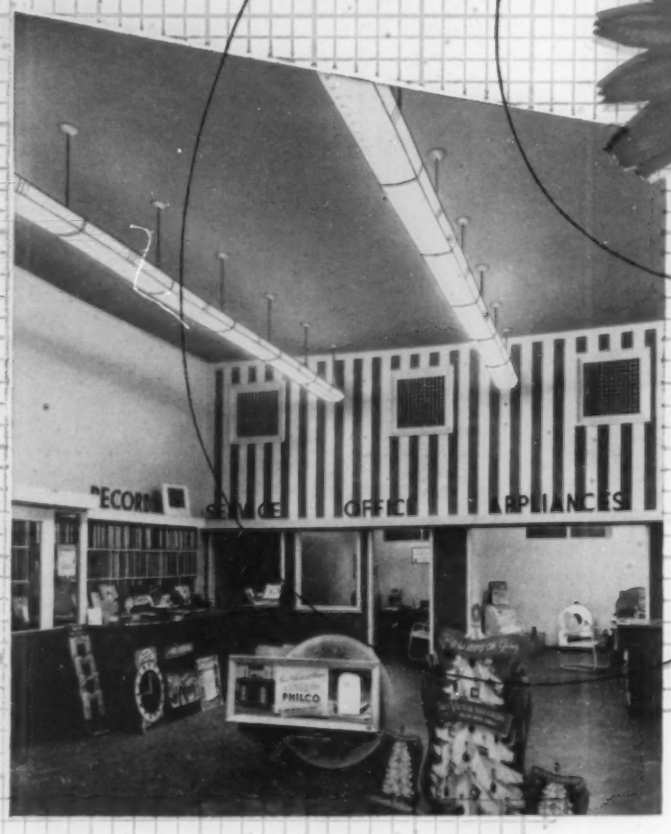


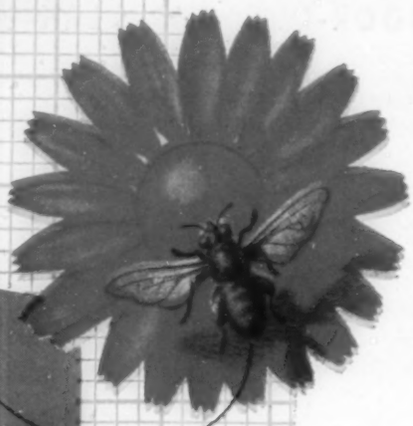
PLANT POCKETS AT FRAME WALL

(Continued on page 155)

OPTICALLY ENGINEERED

for greater eye appeal





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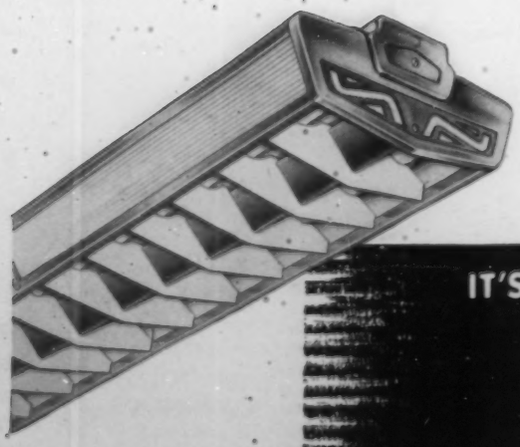

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IT'S EASY TO SEE WHEN IT'S
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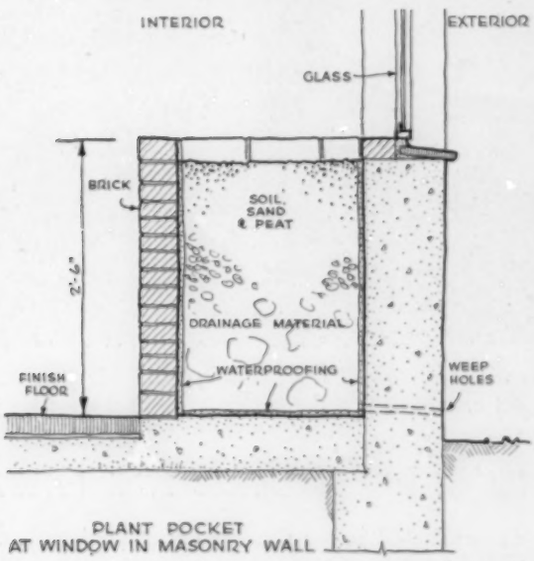
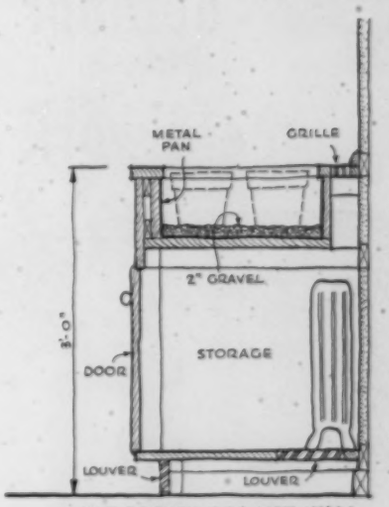
INDOOR-OUTDOOR PLANTING BEDS, Construction Details

By Henry B. Aul, Landscape Architect

(Continued from page 153)

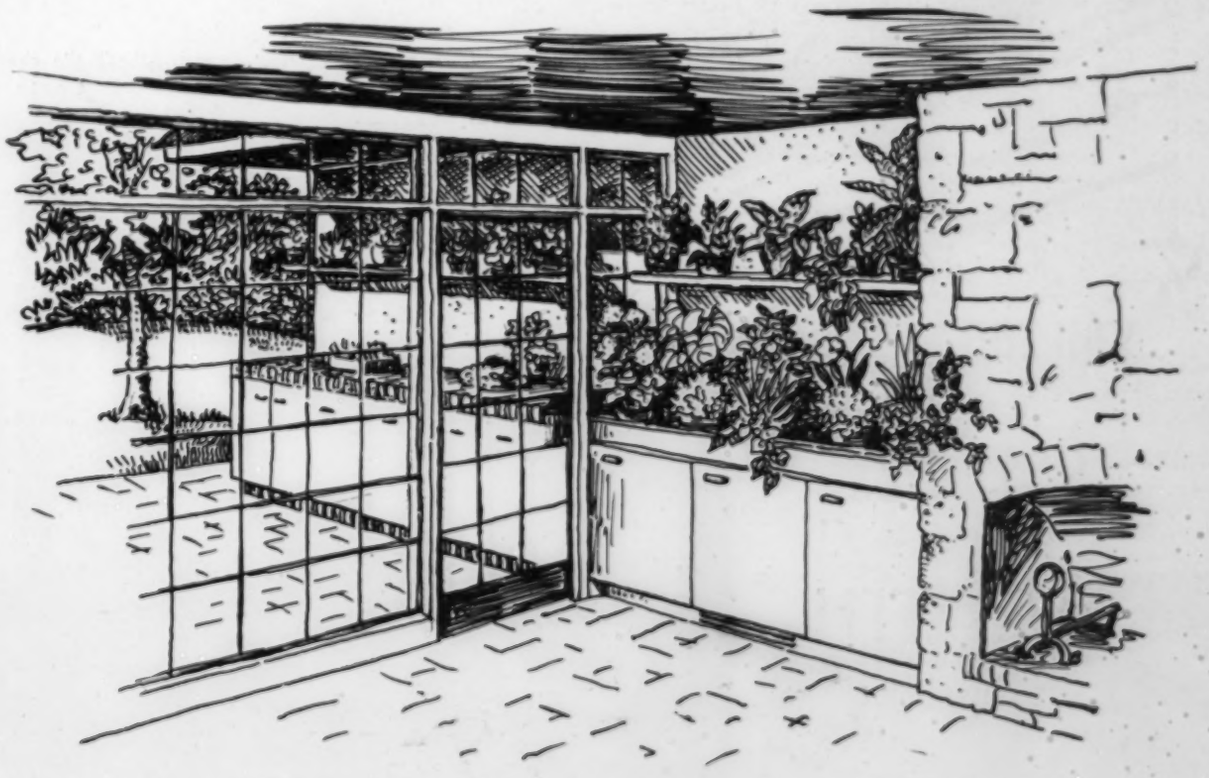


PLANT POCKET AT WINDOW IN MASONRY WALL

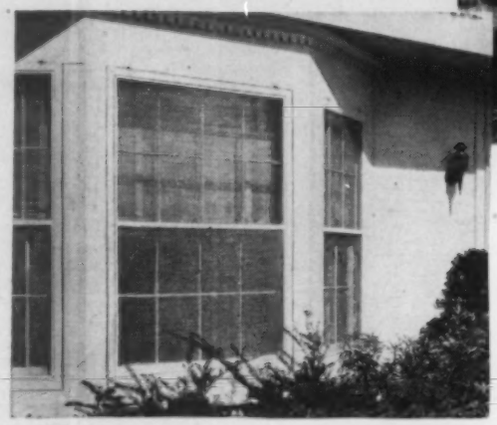


PLANT POCKET AGAINST WALL

For the client who takes his hobbies seriously, the potting bench outside may be combined with a bench-height plant display in a hobby room inside. Work bench outside is brick topped, and sheltered by roof overhang. Shelves above provide display space for plants and brighten up the prosaic potting bench. Top sash and end casement open to provide ventilation inside



For outdoor metalwork



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DOWNSPOUTS: *Roof drains that will last forever—that's the dream stainless steel makes come true. The downspouts pictured here have been up 10 years.*

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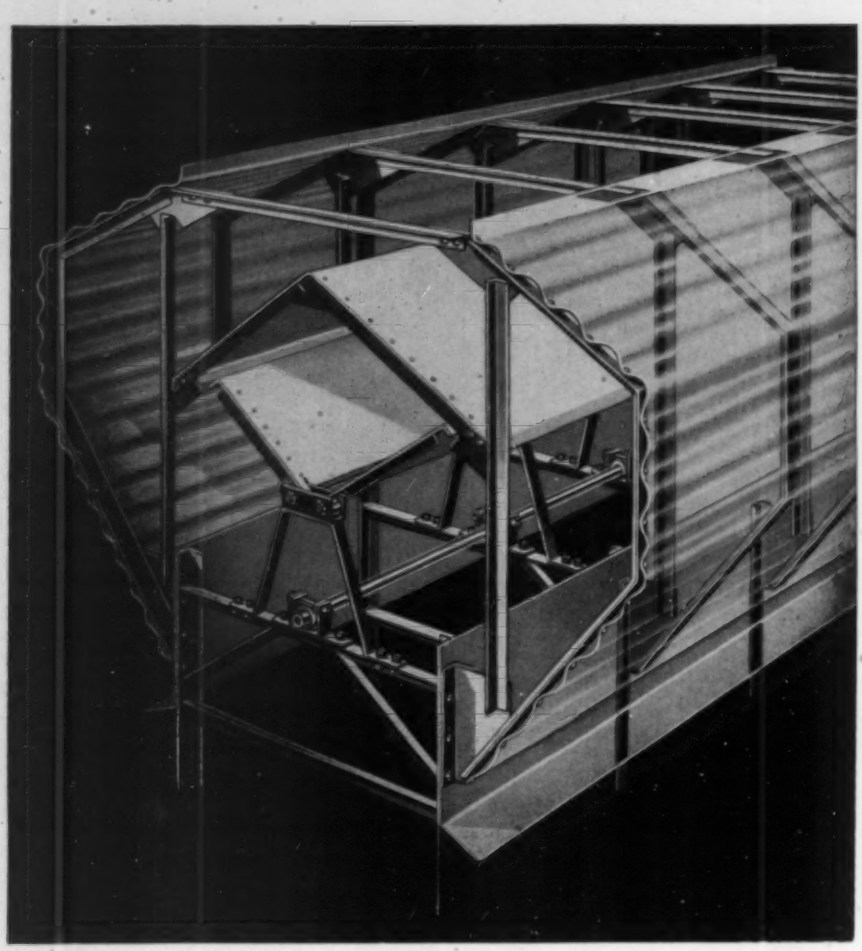
Trinity White **PORTLAND CEMENT**

PLAIN OR WATERPROOFED

as white as snow

BEAT SUMMER SLUMP WITH BURT VENTILATORS



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THE RECORD REPORTS

(*Continued from page 16*)

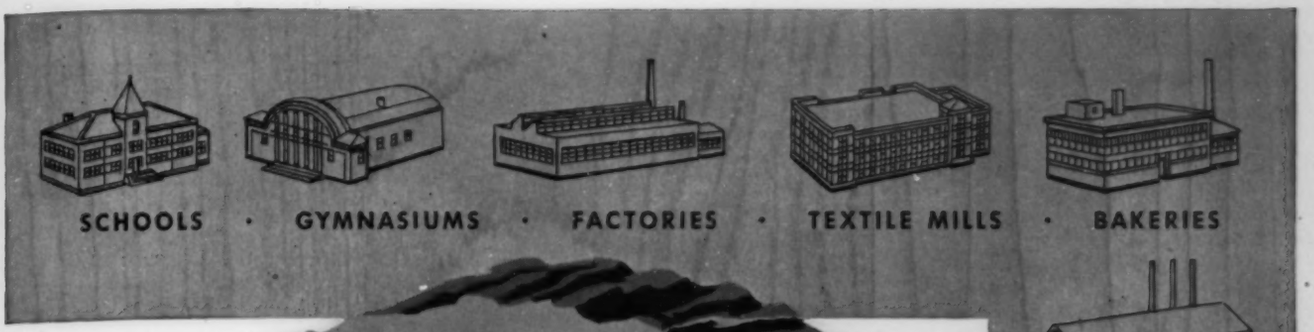
HOUSING INSTITUTE HOLDS FIRST CONFERENCE

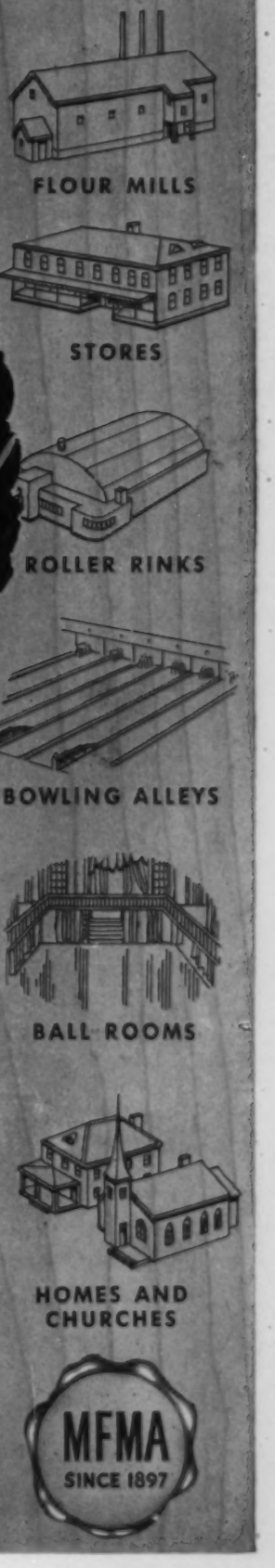
The newly organized Institute Of Housing Studies, sponsored by the New York State Division of Housing, in collaboration with the New York Chapter of the A.I.A., the New York State Association of Architects, the Association of Engineering Colleges of New York State, the New York State Society of Professional Engineers, and several other groups of planners, held its first conference at the Hotel Pennsylvania, New York, on June 2, 3, and 4. One of the main topics under discussion was "Reducing The Cost Of The Small Home," as a partial answer to the housing shortage.

From an overall standpoint, the main factors brought out by the discussion that contribute to maintaining the high cost of the small home are lack of standardization of materials and building techniques, inconsistencies in zoning and out-of-date building codes, labor union restrictions and feather bedding, and the backwardness of design and construction in general. It was also suggested that home financing and insurance be improved.

It is the opinion of Professor Olindo Grossi of Pratt Institute that good design standards in small houses would be a cost cutter, and that the persistence of traditional forms and construction in the so-called low-cost home increase costs unnecessarily. Professor Ralph Winslow of Rensselaer Polytechnic Institute brought out the point that more simplified materials are needed and that expensive non-standard, non-minimum details, fixtures and equipment should not be promulgated as being a part of the would be low-cost house. Apropos of this statement, Professor M. C. Giannini of New York University believes that the public has been deceived by attractive advertising into believing that luxury items such as automatic heating, tile baths, fireplaces, porches, and expensive mechanical equipment should be included in a minimum cost home. Professor Giannini thinks that the public should be "de-educated" to know just how few gadgets really can be included in a low-cost house. Another important point that relates the cost of a small house to its real estate or subdivision improvements was discussed by O. Kline Fulmer, architect, of New York City. Mr. Fulmer believes that land planners and developers should analyze the real needs for street widths and paving, and that sidewalks should be kept to the minimum and used only where necessary; that the cost of im-

(*Continued on page 160*)





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To architects who specify it regularly, Northern Hard Maple means smooth, easy-to-clean hard surfaces. It means flooring that is easily and economically maintained — flooring with the durability to withstand the hard wear of heavy traffic, day in, day out, for years . . . warm, resilient comfort underfoot . . . and lasting beauty.

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FLOOR WITH *NORTHERN* HARD MAPLE
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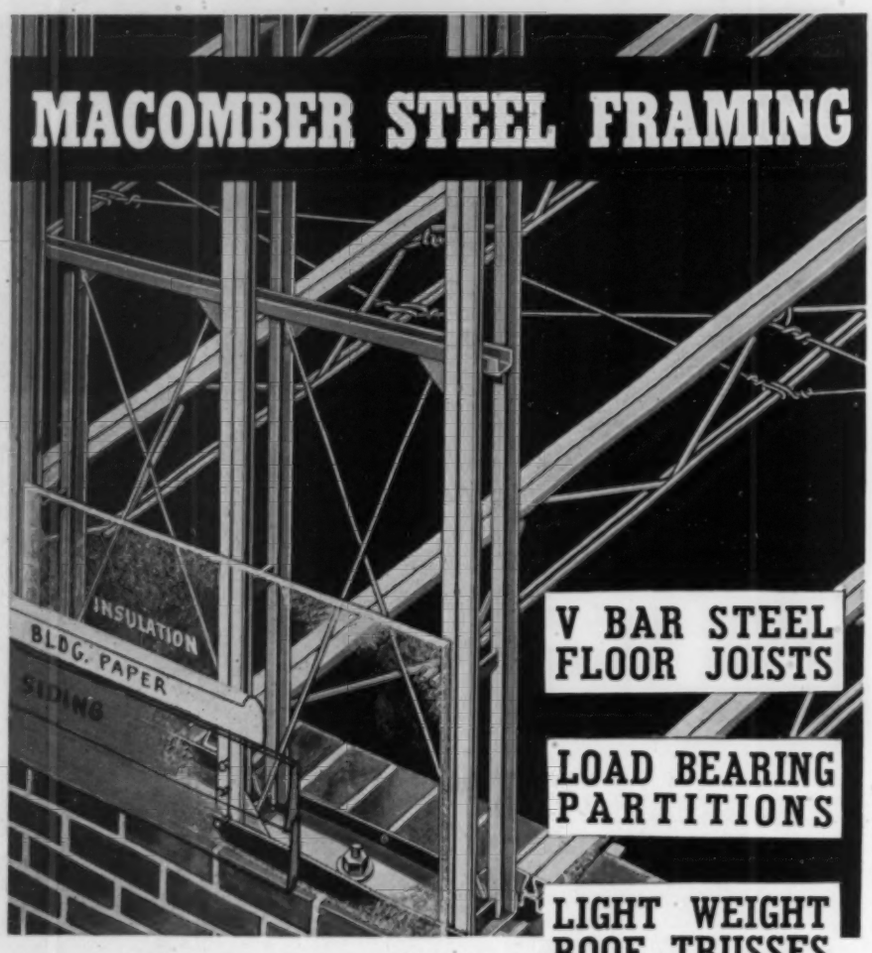

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STANDARDIZED STEEL BUILDING PRODUCTS

THE RECORD REPORTS

(*Continued from page 158*)

provements such as these are reflected in the cost of the lots, which is a factor not sufficiently considered by builders and developers. This point is equally applicable to housing developments as well as private home subdivisions.

New materials and methods were discussed during the second day of the conference, and Howard P. Vermilya, President, American Houses, Inc., believes that manufacturers are reticent to invest in the unknown, i.e. new materials, as long as the available labor supply and equipment cannot produce enough to meet the demand for known, on-the-market materials.

NEW YORK STATE BOOSTS COOPERATIVE HOUSING

At a recent press conference Herman T. Stichman, New York State Housing Commissioner, revealed in detail the plans for state participation in the Veterans Mutual Housing Program. Under VMHP groups of veterans are encouraged to form cooperative housing companies which are state tax exempt for the purpose of constructing FHA insured multi-family cooperative dwelling units or developments.

Above and beyond the desire to alleviate to some extent the immediate housing shortage, one of the main missions of the Program is to analyze carefully all the elements involved in present day building through the medium of large scale housing projects, in an effort to determine just what is retarding private home building. According to Commissioner Stichman, the Program will serve the purpose of a housing "laboratory" to ascertain the weak links in the complete present day building process, from financing to occupancy, that are holding back the construction of private houses.

The first project begun under the state sponsored program is Bell Park Gardens, Bayside, Queens, N.Y., which is being built for United Veterans Mutual Housing Company, Inc. When completed it will consist of 800 dwelling units contained in 55 two story garden-type buildings. The entire development will occupy a 40 acre tract situated on Bell and Springfield Boulevards between 67th and 73rd Avenues on the outskirts of Bayside. Apartment sizes range from 3½ to 6 rooms. Many of the 5 room apartments will be duplex arrangements. Extensive areas for recreation and parking are also planned. The entire development will be steam heated by a centrally located oil-fired heating plant. The architect for the project is William M. Dowling; Roth Schenker Corp., builders.

(*News continued on page 162*)

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He himself has chosen Crane time after time in nationwide surveys. He knows Crane for fine quality . . . for modern styling . . . for beauty that endures. And *you* know the broad Crane line will suit his needs exactly—with a style for every taste, and a price for every budget. These things are true of Crane kitchen sinks, bathroom and laundry fixtures alike—and all feature the new finger-tip *Dial-ese* faucets. Again in heating, Crane offers a full choice of equipment . . . for any system, any fuel. When making selections, refer to your copy of "Crane Service for Architects," or ask your Crane branch for one. Of course, not all fixtures are immediately available everywhere . . . check your requirements with your Crane branch or wholesaler.

The outdoors comes in . . . *to this conservatory kitchen. A gay blend of efficiency and charm, the room focuses on the new Crane Sunnycrest sink.*

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Is there a "Best Floor" for the Bathroom?

This floor, Wrightex, soft-surface Wright Rubber Tile — No. 703 Blue-cream, and No. 701 Gold-brown, with Wright-on-Top Compression Base. Photo and bathroom style — courtesy Crane Co. You'll see it in actual colors, in Aug, HOUSE BEAUTIFUL and Sept. HOUSE AND GARDEN.

We nominate WRIGHT RUBBER TILE

Compare this "candidate" with all other types of flooring. When you do, we believe you will discover that Wright Rubber Tile possesses the good features of all types of floor, and, in addition, outstanding advantages of its own.

The rich colors of Wright Rubber Tile floors laid 25 years ago — or longer — are as bright and new-looking as if laid yesterday. Free from the stains and marks of dirt, acids, and grease, their defiance to wear is notable . . . demonstrating also the unmatched ease with which Wright Rubber Tile is kept clean and lustrous. That, in a nutshell, explains its growing leadership in today's home-floor trend, and the mounting preference of architects and builders . . . reveals its enduring beauty, its real economy . . . and earmarks Wright Rubber Tile the "lifetime floor."

DON'T MISS —
Wright-on-Top, the new compression base for all type floors. Always beautiful—will not scuff or mar.

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WRIGHT RUBBER TILE
Floors of Distinction

THE RECORD REPORTS

(*Continued from page 160*)

New York cooperative apartments under construction on Fifth Avenue opposite Central Park. William I. Hohauser, Architect

FIFTH AVENUE COOPERATIVE

Another new steel and brick apartment building will arise this summer at 870 Fifth Ave. (Northwest corner of 68th St.) facing the east side of Central Park. The site is the former location of the Harry Payne Whitney mansion built in 1888, and is in one of the most distinguished residential sections on Manhattan Island.

The building, designed by William I. Hohauser, Architect, of New York, will contain 95 apartments ranging in size from 3 to 7 rooms, and will be available in both simplex and duplex arrangements. Many will have set-back terraces. According to J. M. Simon, president of Simon Bros., builders and owners, the apartments will be sold to residents of New York State on a cooperative basis.

Louis Sullivan Exhibit

A current exhibition at the Museum of Modern Art, New York City, entitled "The Masterpieces of Louis Sullivan," is small by the exigencies of exhibition space and available material, but well chosen. A sequel to last year's "The Masterpieces of H. H. Richardson," it presents in a pictorially effective way seven outstanding examples of Sullivan's work: the Tower, Auditorium Building, Chicago; the Wainwright Bldg., St. Louis; the Guaranty Bldg., Buffalo; the Gage Bldg., Chicago; the Schlesinger and Mayer Department Store, Chicago; the Martin Ryerson Tomb, Chicago; and an interior detail photograph of McVicker's Theater, Chicago. The exhibit closes on July 25.

(*News continued on page 164*)

You can do *anything with*

PLASTER

FRAZIER and RAFTERY, ARCHITECTS

Plaster, the truly plastic interior finish, will do anything an architect wishes to give expression to his wall and ceiling design. Whether you plan a plain, curving or ornamental surface—the underside of a curving staircase, for instance, or a ceiling recessed for indirect lighting—plaster should be a part of your plan. Even at today's costs, plaster is among the least expensive wall and ceiling materials. Plaster is enduring, fire-retardant, resistant to the transmission of noise. It can be applied over many different bases, to obtain the results required by a given building code or function. Plaster can solve almost any wall and ceiling construction problem—or design problem. Plaster . . . lath and plaster. USG METAL LATH and RED TOP Gypsum Plaster.

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United States Gypsum, Chicago 6

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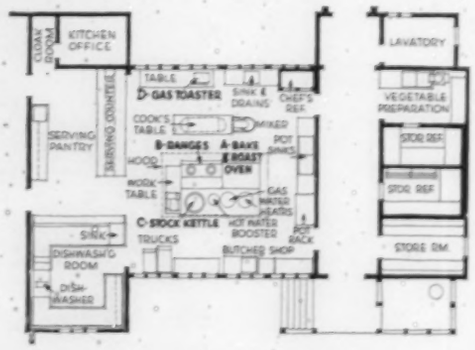
Four houses in one, and one answer to the low-income housing problem: the "Quaternian House," developed by Marie Frommer, Architect, from an idea by Stephen Leeman

KITCHEN PLAN NO. 45:

Forty-fifth in a series of successful mass-feeding installations.

LP Gas and a "Specialized Cooking Tool" layout make this cleverly designed kitchen at the BYNDENWOOD Y.M.C.A. Summer Camp, Wernersville, Pa., an efficient mass-feeding unit.

KEEP FOR HANDY REFERENCE



COOKING EQUIPMENT USED:

(a) 1 — No. 959 Blodgett Gas-Fired Baking and Roasting Oven

(b) 2 — Solid-top gas-fired ranges

(c) 1 — 40 gallon gas-fired stock kettle

(d) 1 — Gas-fired toaster
(Gas-fired water heating and hot water booster)

Designed by H. P. Rung, Nathan Straus-Duparquet, Inc., N. Y., N. Y. for Muhlenberg Brothers, Reading, Pa., Architects.

The heart of this "Specialized Cooking Tool" kitchen plan, designed to feed 700 robust youngsters at each meal, is the versatile No. 959 Blodgett Gas-fired Baking and roasting oven. It has two sections, one with two 42" x 32" x 7" compartments, and one with a 42" x 32" x 12" compartment. This unit is used for baking of desserts and pastries, and for the preparation of vegetables, meats and fish. For details and specifications write to

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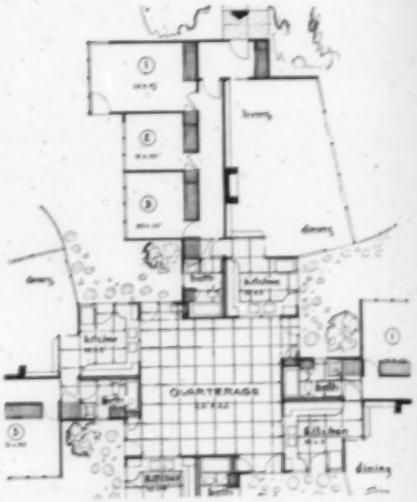


One of the Quaternian's four wings. For complete plan, see drawing bottom of page

NOVEL HOUSE PLAN

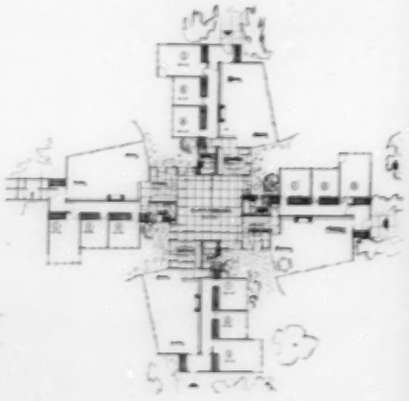
An interesting solution to the low income housing problem is the "Quaternian House," originated by Stephen Leeman and developed by Marie Frommer, architect, of New York. The plans have been copyrighted.

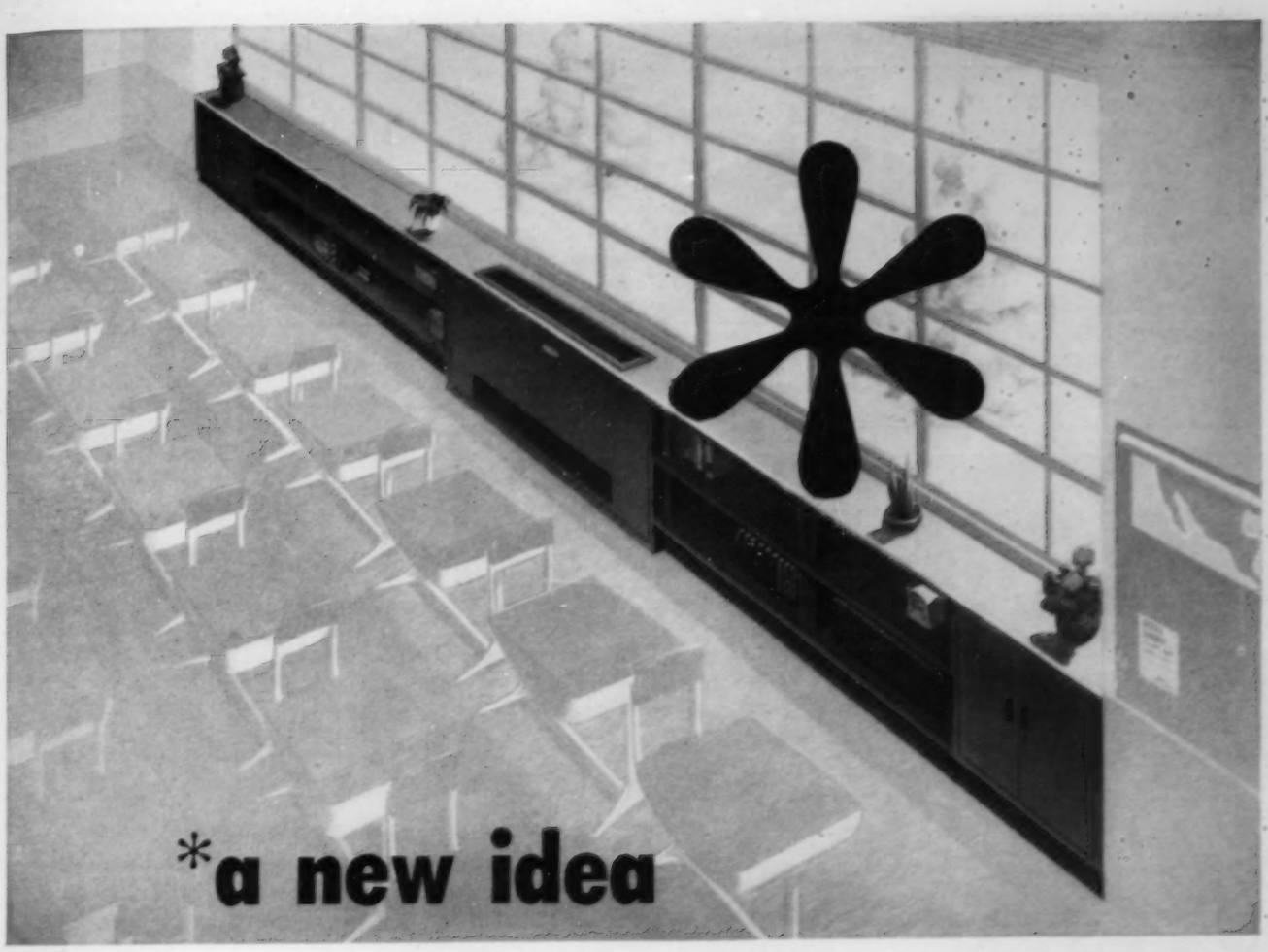
The basic idea of the Quaternian House is to group four complete bungalows around a center section called the Quarterage, which will be used communally by the four families. The advantages which would result from such a scheme, say the proposers of the plan, would include:

1. Lower first cost and maintenance costs, made possible by concentration of furnace, laundry, toolshed, etc., for the four houses in the center section, by arrangement of bathrooms and kitchens around the center section, and by the elimination of one outside wall for each of the four houses.

2. Availability of the Quarterage as a playroom for the children during the day (all kitchens overlook the area, so that one person can supervise all the children), and as a night nursery with bunks for the children to permit one baby sitter to take care of the children

(*Continued on page 166*)





that is ten years old!

First introduced by John J. Nesbitt, Inc., in 1938, as the "answer to the orange-crate craze" (the resort of teachers to makeshift storage facilities in their classrooms). Installed that year in the Barlow School, Plainfield, N. J., and in many others since then. It is called THE NESBITT PACKAGE. Components: (1) The Nesbitt Syncretizer unit ventilator with air-stream minimum temperature control (introduced by Nesbitt in 1932); (2) Nesbitt integrated steel shelving and cabinets for modern storage requirements, utilizing the spare window space; (3) Nesbitt Convector, where desired, for additional heating capacity.

Health, comfort, utility, and good design are all combined in this proved idea for new and remodeled schoolrooms. Choose this modern convenience on the basis of its most important component—the unit ventilator. No other unit operates as economically as the Nesbitt Syncretizer. Nesbitt's neat cabinets give you extra storage space and the one-piece linoleum top. Specify the NESBITT PACKAGE.

Send for Publication 249

THE NESBITT PACKAGE, first advertised in 1938, is ten years ahead in proved worth and acceptance.

THE NESBITT PACKAGE

Made by John J. Nesbitt, Inc., Philadelphia 36, Pa., and Sold by Nesbitts and American Blower Corporation

of all four families at once. The Quaterage also will provide extra space for special events — for individual parties, for gatherings of the four families, etc.

3. More light and air for each of the four houses as they do not obstruct each other. A lot of the equivalent of four small plots would be used for the Quaternian House, to be utilized jointly by the four families, giving each the advantages of a larger area.

Each of the four wings contains a large living-dining room, three bedrooms (any one of which could be used for other purposes such as study or studio), kitchen and bath. Each kitchen opens onto its own patio work area.

AT THE COLLEGES

Apartments for Illinois Tech

Construction of a new 10 story building for the student housing program at the Illinois Institute of Technology was announced recently when contracts were awarded. It is to be located on the west side of Michigan Ave. between 31st and 32nd Streets, Chicago. Completion of this latest project in the $15,000,000 development program for Illinois Tech is scheduled for June, 1949. Architects are Skidmore, Owings and Merrill, of Chicago.

New 10-story, 123-unit apartment building for married students at Illinois Tech

The new structure will contain 65 two-room units consisting of a combined living room and bedroom, kitchenette and bath, and 58 three-room units consisting of a living room, bedroom, kitchenette and bath. Both two-room and three-room units will be available to married students at Illinois Tech.

Thesis on Airport Hotel

From Iowa State College comes a most interesting study of airport hotel needs, prepared by Arthur E. Burton as his thesis for the degree of Master of Science in Architectural Engineering.

Entitled "A Proposed Development of Hotel Facilities for Airline Passengers and Airport Personnel at a Typical Class IV Airport in the Midwest," the paper is of interest because it presents a thorough job of research into a new building type. Not much consideration has been given heretofore to the special needs of airport hotels.

There is, perhaps, some over-emphasis in Mr. Burton's study on statistics, with a corresponding neglect of the human element. Not all airport employees would want to live at the airport even though good quarters were provided for them, and at least some hold-over passengers would prefer to make the trip to an in-town hotel, no matter how comfortable the airport hotel might be. On the whole, however, Mr. Burton has prepared a good basic analysis of airport hotel needs, and has pointed the way to further study on the subject.

Fellowship Awarded

The College of Architecture and Design at the University of Michigan has announced that John Henry Bickel, III, of Louisville, Ky., was the winner of the George G. Booth Traveling Fellowship Competition for 1948. Mr. Bickel plans to travel in Europe.

(*Continued on page 168*)

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With beautiful Hastings Alumitile, everyone can now afford attractive wall tile.
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These features—economical heating, long, efficient service, smart appearance, easy convertibility to any fuel—are the engineered results of over seven years of intensive NATIONAL research.

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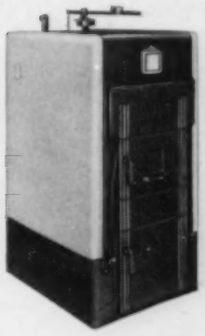
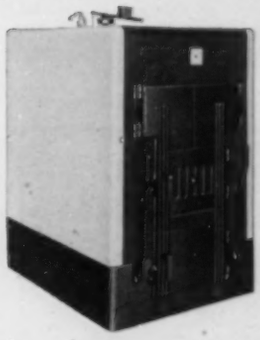
"200" SERIES. Big boiler performance for homes of medium size and some commercial installations.





"300" SERIES. For larger homes, small apartments and various commercial installations where more heat is needed.

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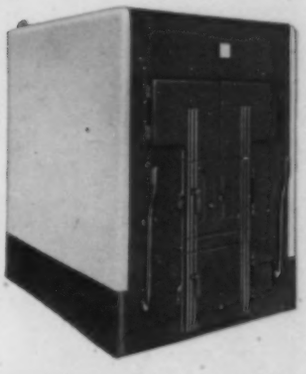

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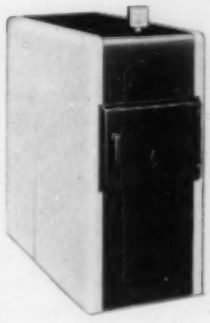
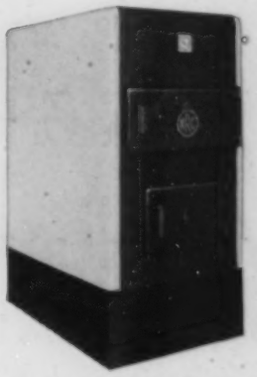
Their economy of first cost . . . installation . . . operation . . . and upkeep offers outstanding value for residential and commercial heating. Construction and performance meet or exceed all requirements of recognized authorities and codes.



18" and 23" Series Steel Boilers are available in 5 sizes with oil or gas firing for small and medium size residential installations.

For larger homes, smaller apartments and small commercial buildings, 26", 29" and 39" Series Steel Boilers are designed for oil, stoker or gas firing.



And for still larger heating jobs, 16 sizes of Commercial Steel Boilers, designed for hand, stoker or oil firing, and ranging to 35,000 square feet of steam radiation, carry on the tradition of National engineering excellence.

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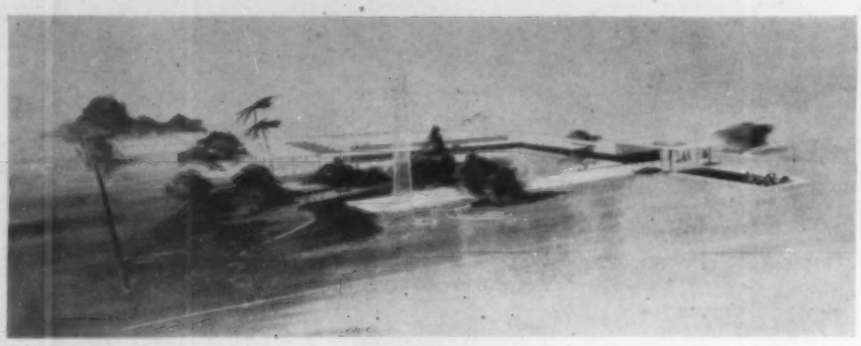

Hotel Kitchen
Van-equipped
1948

Hotel Kitchen
1877

Bettmann Archive

Van starts second century

● As Van starts its second century of service to hotels, its experience has earned for it authority in its field of kitchen engineering and equipment . . . respected by architects, operators, food service staffs of leading hotels.

● When planning new projects, revisions or extensions to existing food service, owners and architects have found that it pays to call in Van.

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Competition Winners Announced

The Association of the Alumni of the American Academy in Rome has announced the winners of two prizes in its 21st annual collaborative competition sponsored by the Association for students of architecture, landscape architecture, painting and sculpture in the colleges and art schools of the United States.

The problem was to design a showroom and plant for a leading manufacturer of perfumes and cosmetics. Located in the country on a main highway outside a large city, and surrounded by beautiful gardens, the center would eventually become the "Showplace of America." It should attract people and be effective advertising for the products.

The first prize of $200.00 was awarded to a team of students from Cranbrook Academy of Art: architects were W. C. Muchow and D. R. Knorr; Matt Kahn, painter; and both Matt Kahn and D. R. Knorr, sculptors. Their winning design, shown at the top of the adjacent column, was commended especially for its logical plan and effective sculpture.

Second prize of $100.00 was awarded to a team from Cornell University which included Richard H. Schreiber, architect; Henri Jova, landscape architect; Paul Jova, painter, and William B. Doan, sculptor.

Honorable Mentions were given to five teams: two from Cooper Union Art School, one from Cornell University, one from the University of Notre Dame, and the fifth from the Cleveland School of Art in conjunction with the School of Architecture of Western Reserve University.

The jury of awards was composed of E. V. Meeks, Lorimer Rich, Morris Ketchum, Jr., Francis Cormier, A. F. Brinckerhoff, Richard C. Murdock, Francis Scott Bradford, Russel Cowles, Allyn Cox, Gaetano Cecere, Isamu Noguchi and Wheeler Williams.

Neutra on Neutra

July 26–28 will be Richard J. Neutra Week at Montana State College. In a special Summer Quarter seminar Mr. Neutra not only will be chief lecturer, but will also have his own work illustrated and discussed by the College's architectural staff. Subjects he will discuss are: Sociology and Architecture; Problems and Solutions Involved in City and Regional Planning; Relationship between the Architectural Profession and the Public; Housing; his own experiences and observations of building developments throughout the world; Theory of Design and Integration of the Arts, Space-time, etc. In addition, he will lead several open discussions, one on schools.

Further information on the three-day

(Continued on page 170)

← OVERHEAD . . .

IS WHERE THE DOOR CLOSERS BELONG . . .

NOT UNDERFOOT →

Alert designers today call for concealed control on all prominent doors. Some do not realize, however, the advantages of concealing the closers OVER the doors rather than in the floor. For three reasons overhead closers should be specified:

FIRST COST . . .

With list prices about equal, the *installed cost* of the overhead closer is usually much less than that of a floor closer. Why? No cutting of floors; no costly moves; no extra door holders or shock absorbers to buy; no expensive boxed or cut thresholds needed. The overhead closer is easily secured in a metal door and frame "blanked out" for it at the factory, or in a wood door and frame quickly prepared on the job. These savings run into real money.

PERFORMANCE . . .

An overhead door closer is basically more efficient because its power is applied farther out from the hinge than that of a floor closer. This gives greater leverage, a smoother performance, less strain on closer, door and frame. All adjustments are easy to reach without removing anything.

LONG-RUN COST . . .

The real cost of any equipment is the *total* cost, including maintenance, over the years. Here the overhead closer is far more economical than the floor type. (We know this, after twenty years of making both types and observing the experience of users.)

The overhead closer needs less servicing and lasts longer. In its protected location above the door it avoids the abuses of floor dirt, scrub water, etc., which always foul a floor closer and shorten its life. This is doubly true where closers are exposed to the weather.

LCN Catalog 11-a contains 33 pages of information on good door control; how to select the right closer; full data on each. Would you like a copy? Address LCN Closers, Inc., 466 W. Superior St., Chicago 10, Illinois.

LCN

Overhead and Floor Type

Concealed *and* Surface Type Door Closers

session may be obtained from the Director, Summer Quarter, Montana State College, Bozeman, Mont.

Columbia Names Consulting Architects

Adams & Woodbridge of New York have been appointed consulting architects to Columbia University as the first step in a long-range plan of architectural coordination and development. The firm will have architectural supervision over present and future properties and buildings of the University on Morningside Heights (exclusive of Barnard and Teachers Colleges and Union Theological Seminary), the Medical Center on Washington Heights, Baker Field, the Nevis Estate at Irvington-on-Hudson, and Camp Columbia at Litchfield, Conn.

Under the terms of the arrangement, Adams & Woodbridge will not design any buildings for Columbia. Their duties will include: liaison between the comptroller's office and architectural firms, landscape architects and decorators engaged in design and construction or alteration of university buildings and grounds; general consultation in connection with problems of maintenance, alterations to buildings and grounds, and utilization of space; supervision of such architectural details as character, design, mass and height of buildings, and the development of landscaping of grounds; and cooperation with university officials in matters pertaining to general development needs.

Reflecting your Ideas!
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Lumiline and Fluorescent Light Cabinet with Side Cabinets
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No. 210
Soap Holder
In the complete Parker line of bathroom cabinets and accessories are designs which actualize your own ideas—in style, utility, craftsmanship, price range. Long experience in working with architects makes possible this ability to "see through the architect's eyes" and provide exactly the right equipment for any bathroom. See the complete line in Sweet's or send for the new Parker catalog. The Charles Parker Company, Meriden, Conn.
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OFFICE NOTES

Offices Opened, Reopened

Edward L. Barnes, Architect, has established his own offices at 33 E. 75th St., New York City, N. Y.

George H. Davis, Jr., Architect, has announced the opening of offices for the practice of architecture in association with John B. Ferguson, Engineer, at 14423 Sylvan St., Van Nuys, Calif.

Joseph H. Heuer, Structural Engineer, has opened an office for the practice of general structural design at 5 S. Wabash Ave., Chicago 3, Ill.

Alexander Henry Spitz, A.I.A., and Warren Edward Spitz, A.I.A., announce the opening of their new offices in the Fine Arts Bldg., 410 S. Michigan Ave., Chicago, Ill.

Turner Construction Co., with offices in Boston, New York and Philadelphia, has opened a Chicago office at 105 W. Adams St. R. L. Cullum is District Manager, and Clarke I. Knudson is Contract Engineer.

New Addresses

The following new addresses have been announced:

Donald L. Bostwick, Architect and Engineer, 34 S. Main St., Niles, Ohio.

Samuel I. Oshiver, Architect, 2128 Locust St., Philadelphia, Pa.

Sigman and Farkas, Consulting Engineers, 14 Church St., New York City, N. Y.

New Firms, Firm Changes

Herman M. Cole and Fred L. Liebmann announce the formation of a partnership under the firm name of Cole and Liebmann, Architects, at 415 Lexington Ave., New York, N. Y.

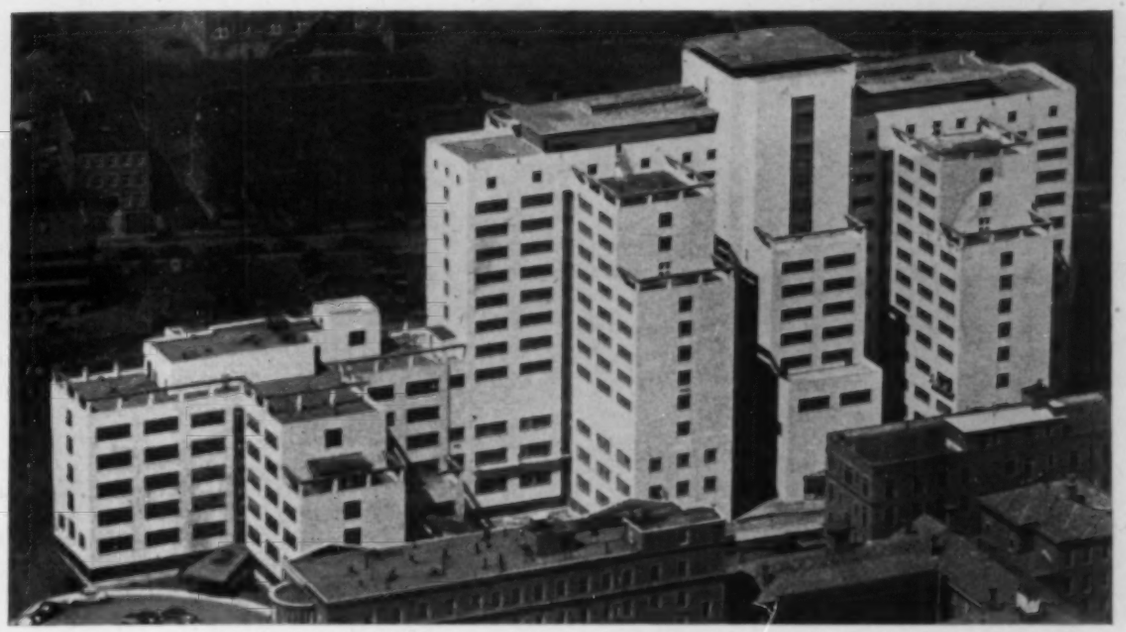
Fleming R. Hurt, A.I.A., has formed a partnership with Charlie D. Hurt, Jr., A.I.A., for the practice of architecture under the firm name of Fleming R. Hurt and Charlie D. Hurt, Jr., Architects, with offices at Waynesboro, Va. and Lexington, Va.

Richard L. Meagher has recently entered partnership with Robert L. Brown and William G. Wells. The firm, now known as Brown, Wells, and Meagher, Architects and Engineers, has

(*Continued on page 172*)

Save your clients future redecorating expense ...

Specify FABRON for walls and ceilings



THE HARTFORD HOSPITAL, Hartford, Conn. Coolidge Shepley Bulfinch & Abbott, *Architects*.

Dedicated in March, 1948, this beautiful new 820-bed building replaces the old hospital (foreground) founded in 1854. It is one of the largest, most modern and most efficiently equipped postwar hospitals. Fabron was used throughout—in patients' rooms, corridors, staircases, dining quarters, offices—wherever the surface to be decorated was of plaster.

ONE REASON why FABRON, the fabric-plastic-lacquer wall covering, has been adopted by well over a thousand institutions in the hospital field alone is its proven record as a budget saver. For FABRON with its double function—decorating and preserving that decoration — was engineered for long-range economy. It eliminates periodic repaintings—a vitally important advantage to institutions whose operating funds are limited.

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More than 150 Fabron patterns, colors and textures —*styled especially for institutional needs*—permit decorative latitude impossible to achieve with conventional interior finishes. And—Fabron prevents fire-spread. Every roll carries the label of the Underwriters' Laboratories, Inc.

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AR 7-48.

offices at 118½ W. Campbell Ave., Roanoke, Va.

Walter L. Moody, Architect, has recently become associated with Ralph C. Flewelling, Architect, under the firm name of Ralph C. Flewelling and Walter L. Moody, Architects, at 3112 Loz Feliz Boulevard, Los Angeles, Calif.

I. Wm. Ricciuti and M. Wayne Stoffle have consolidated their architectural practices under the name of Ricciuti, Stoffle and Associates, Architects, with offices in the Queen and Crescent Bldg., New Orleans, La.

James J. Souder has recently become associated with York and Sawyer, Architects, of 101 Park Ave., New York City, N. Y. York and Sawyer also announce the opening of an office in Washington, D. C., at 1308 18th St. for the continuance of the practice of the late Jarrett C. White, A.I.A. Mr. Souder, who was associated with Mr. White, will continue in the Washington office.

Wallace Franklin Yerkes, A.I.A., has joined the Chicago architectural firm of Naess and Murphy. Until recently Mr. Yerkes was a partner of Grunsfield, Yerkes, Lichtmann and Koenig, Chicago, in charge of designing.

Elections, Appointments

Ira J. Bach has been appointed Director of Planning of the Chicago Land Clearance Commission. He was formerly Executive Director of the Cook County Housing Authority and resigned in order to take over the planning of the new slum clearance program for Chicago.

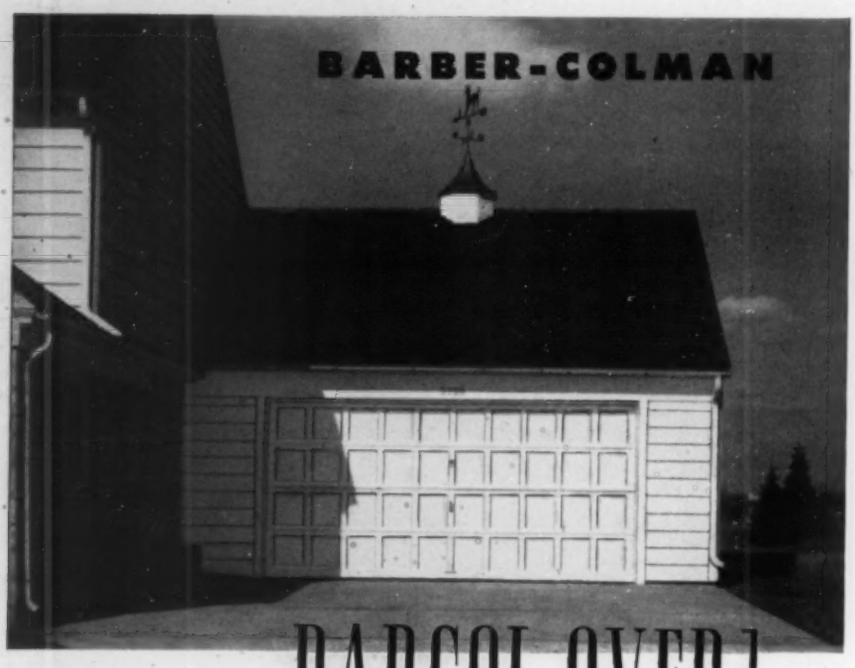
Henry A. Bettman, A.I.A., of the Cincinnati firm of Garriott. Becker and Bettman, has been named to a five-year term as a member of the Cincinnati City Planning Commission. After his appointment he was elected Chairman.

Robert C. Hills has been appointed Director of Client Service by Van Doren, Nowland and Schladermundt, Designers, of New York and Philadelphia.

Dr. Henry W. Newson, prominent nuclear physicist who has played a major role in the development of atomic energy, has been retained as a full-time consultant on nuclear reactor design by the H. K. Ferguson Co., Industrial Engineers and Builders. Royal A. Stone has been appointed chief engineer for the Eastern District of the Ferguson Company.

At recent shareholders and directors meetings of Lockwood Greene Engineers, Inc., their executive officers, as follows, were re-elected: Chester S. Allen, President (New York), Samuel B. Lincoln, Vice-Pres. (New York), Robert E. Barnwell, Vice-Pres. (Spartanburg, S. C.), David Elwell, Vice-Pres. (New York), Howard E. Cousins, Vice-Pres. (Boston), William J. Heiser, Vice-Pres. (New York), Frank S. Harris, Treas. (New York). The Board of Directors was increased to 11, including the above, by the election of the following new directors: George L. Hawkins, New York, John C. Hipp, Spartanburg, S. C., John R. McInerney, New York, Lucius O. Veser, New York.

New officers and directors of The Society of the Plastics Industry were elected to serve until June, 1949, at the conclusion of the Annual Meeting in Atlantic City on May 21. Re-elected were: Chairman of the Board, Neil O. Broderson, Rochester Button Co., Rochester, N. Y.; President, George H. Clark of Formica Insulation Co., Cincinnati, Ohio; Vice-President, Gordon Brown of Bakelite Corp., New York, N. Y.; Secretary, Norman Anderson of General Molded Products Corp., Des Plaines, Ill. Mr. J. J. B. Fulenwider of Hercules Powder Co., Wilmington, Del. is the newly elected Treasurer.



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WEATHERTIGHT. Special roller crank closing action moves the entire door smoothly and evenly against the stop strips in the last few inches of its downward travel, effectively sealing the opening against dust, dirt, litter, snow, rain, sleet, and wind.

EASY WORKING. Tailored twin-torsion counterbalancing springs accurately support the weight of the door, so minimum effort is required for raising or lowering. Sticking is eliminated by the fast-freeing effect of the closing action.

DURABLE. Barcol OVERdoors give long, trouble-free service because of strong construction, accurate assembly, and good installation by factory-trained men.

SEE OUR CATALOG IN SWEET'S

DOUBLE-WIDTH FEATURES. Above we show a double-width Barcol OVERdoor as used on a modern two-car garage. The use of wider single doors like this reduces the cost of installation, reduces the mechanism, eliminates the center post, gives more room for maneuvering two cars, and reduces the chances of damaging cars or garage by collision. These advantages are worth considering for every two-car garage door installation, whether new or remodeling.

ELECTRIC OPERATION. Barcol Electric Door Operators are available for swinging, sliding, and overhead type doors, and for sliding gates. They offer the convenience and protection of switch control or the amazing Radio Control.

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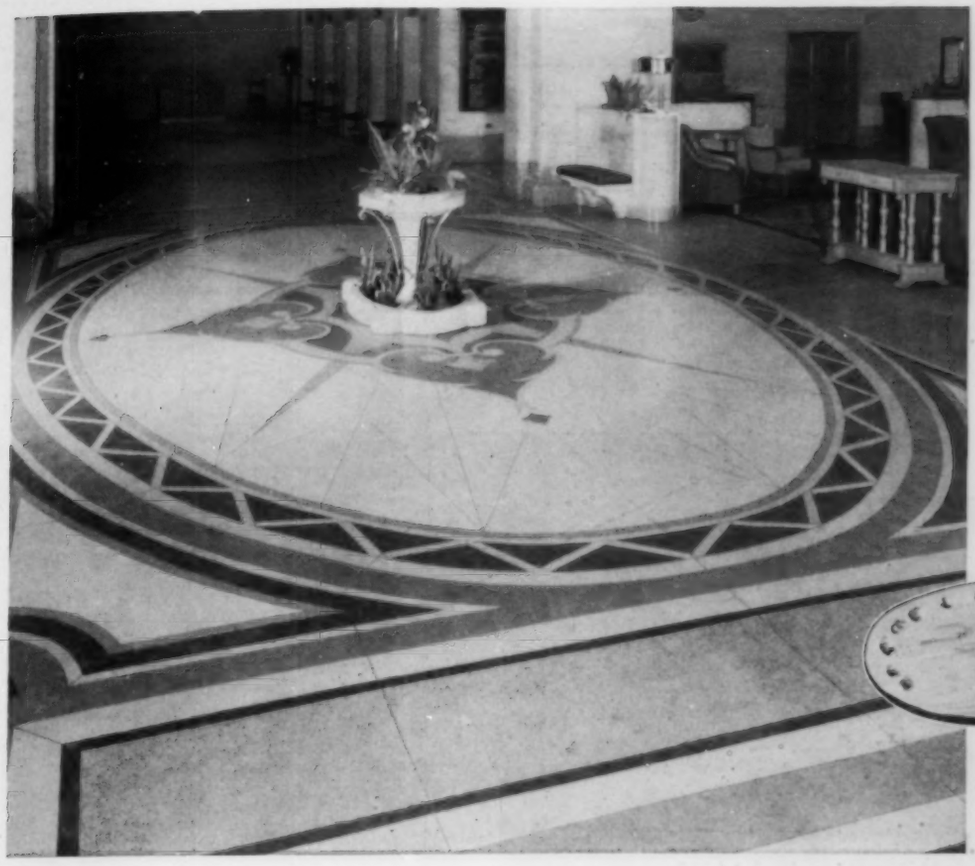

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The true test of quality in white cement is best exemplified in fine Terrazzo. In Terrazzo, as in no other white cement use, a pure white color is absolutely essential. It governs the background in relation to the beautiful colored marble chips. Over 41 years ago, this company introduced Medusa White, the Original White Portland Cement, which has been used in the most colorful and artistic Terrazzo to be found anywhere. Its white color has been tested with hundreds of different color combinations, backgrounds and marble chips. It has been proved the finest white cement for Terrazzo work.

But Terrazzo is not the only use in which the white color of Medusa has excelled. In its many years of service, this fine white cement has been instrumental in making gleaming white and tinted stucco in countless buildings in almost every civilized country in the world. Medusa Waterproofed White, in addition to making a finer stucco, makes the stucco finish impervious to water. That's because the waterproofing material in the Waterproofed White Portland Cement repels all water at the surface. Dirt is washed off, water cannot enter, freeze and disintegrate the stucco. For a permanent beauty in Terrazzo or Stucco, be sure your specifications call for Medusa White, the Original White Portland Cement.

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Also made by Medusa Products Company of Canada, Ltd., Paris, Ontario

NEWS FROM CANADA (*Continued from page 20*)

the owner may buy rental insurance to the extent of $68 per month (85 per cent of the approved rental). He may claim benefits any time after three years have passed. But he is unlikely to do so as long as building costs remain high and there is a shortage of rental housing.

End Direct Participation?

If building costs continue to rise, the Dominion Government — through its agency, Central Mortgage & Housing Corporation — may substantially reduce its 1948 low-rental housing program. Rt. Hon. C. D. Howe, Minister of Reconstruction, says construction will be halted on projects where it appears rentals will be forced higher than $37.50 per month.

The government's current program calls for erection of 12,000 permanent houses for rent to veterans. Agreements completed and pending with municipalities account for less than 9,000. In the light of Mr. Howe's announcement, and since CMHC has taken no further municipal applications for rental housing since June 1, it appears unlikely that the 1948 objective will be met. As for 1949, Mr. Howe comments: "Whether the Dominion will continue in the direct rental field is a matter for further consideration."

Canada doesn't subsidize housing through capital grants or rent reduction funds, but various hidden subsidies exist on both Dominion and municipal levels. The Dominion and the municipalities now share responsibility for 35,000 war workers' and veterans' houses and 10,000 emergency shelter units. Mr. Howe has stated repeatedly that the Dominion faces constitutional limitations in formulating its housing policy and anticipates the day when it can withdraw from house building activity.

Autonomy Granted School

Dr. Sidney E. Smith, president of the University of Toronto, announces that autonomy has been granted the School of Architecture. For 58 years a department of the Faculty of Applied Science and Engineering, the School had a registration of nearly 300 in 1947–48. Professor H. H. Madill, F.R.A.I.C., has been appointed director.

Canada Leads Per Capita

Canada led the world in construction of new housing in 1948, according to the latest issue of *Housing Progress Abroad*, a quarterly review published by Central Mortgage & Housing Corporation. Comparative figures for dwelling units produced per 10,000 population are:

Canada	63
United States	62
New Zealand	61
Sweden	59
United Kingdom	48
Australia	48

The Dominion seems well on the way to reaching its objective of 500,000 units to be erected during the five-year period following World War II. During the two and a half years already passed, nearly 200,000 units have been produced. Volume in 1947 was 79,000 units (an upward revision from earlier estimates of 77,000), which showed a healthy increase over 68,000 units in 1946. Construction time was cut from 11 months per unit in 1946 to eight months per unit in 1947. If the brightening supply picture makes a proportionate speed-up possible this year, production should total a record 90,000 units.

New Record for Housing?

Residential contracts awarded during the first four months of 1948 total nearly $84 million, according to the *Building Reporter*, the monthly construc-

(*Continued on page 176*)

THE CHOICE WAS

FOR BEAUTY

Made of Amtico Rubber, it has all the beauty of marble, plus carpet-like quiet and comfort underfoot. The smart design combinations are almost unlimited.

FOR QUALITY

There is no substitute for quality. When planning this new office, the architects naturally chose Amtico Rubber Tile, knowing they were specifying a floor of lasting satisfaction.

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Bright, new looking floors are essential to good business. Amtico Rubber Floors keep their new appearance through the years, for there is no better flooring material. Whether for an "acre," or a powder room, here is the floor for long life—the floor to give constant satisfaction to your clients.

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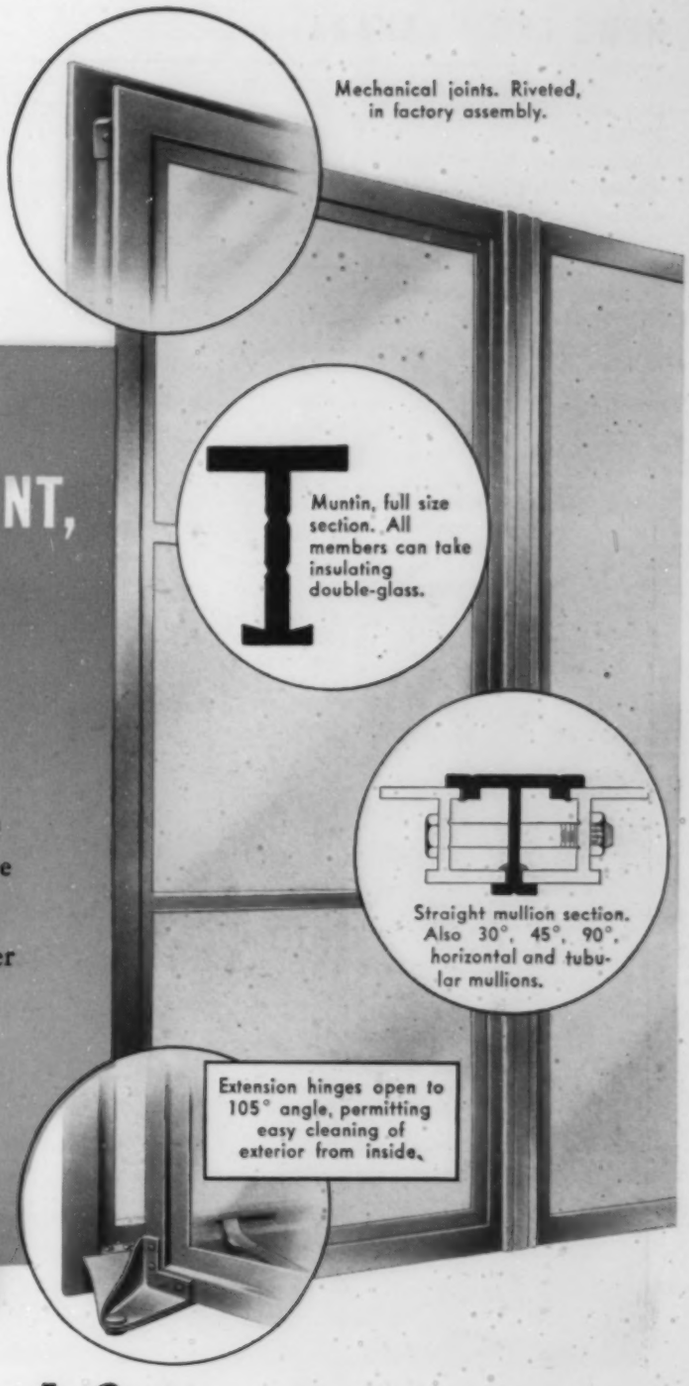
Windows of the type furnished shall have been tested by a recognized laboratory and shall have shown air infiltration not exceeding ½ cubic foot of air per minute per foot of vent perimeter when subjected to static pressure equivalent to a wind velocity of 25 mph.

REYNOLDS ALUMINUM CASEMENT WINDOWS MEET THIS SPECIFICATION.



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Extension hinges open to 105° angle, permitting easy cleaning of exterior from inside.

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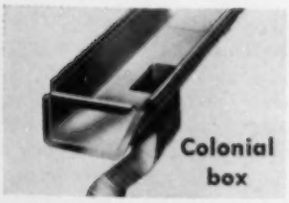
Half-round



Colonial box

O.G. style

REYNOLDS *Lifetime* ALUMINUM Gutters and Downspouts

Rustproof permanence at about half the price of other rusproof materials. Three styles available in either plain or stippled-embossed aluminum.

A.I.A. File Brochures on request from **REYNOLDS METALS COMPANY, Building Products Division, Louisville 1, Ky.**

WORLD'S LARGEST PRODUCER OF ALUMINUM BUILDING PRODUCTS:

Shingles, Clapboard Siding, Corrugated and 5-V Crimp, Snap-Seal and Standing Seam Roofing, Weatherboard Siding, Built-Up Roofing, Nails, Gutters, Wall Tile, Windows, Reflective Insulation, the "Alumi-Drome" (prefabricated utility building).

 (Continued from page 174)

tion summary of Hugh C. MacLean Publications, Ltd. This figure represents a jump of 145 per cent over a year ago, and indicates a sharp increase in physical volume despite rising building costs.

At the very time that starts were multiplying, completions were running about 40 per cent higher than last year. The housing market has concealed its buoyancy well. Residential contracts were down in 1947: $197 million compared with $213 million in 1946. But on the basis of this spring's activity, construction experts are now talking a record $250 million for 1948.

Contracts awarded for all types of building are up 10 per cent over last year. Housing's gain seems to have been made largely at the expense of engineering and industrial classifications, down 35 per cent and 25 per cent respectively. Contracts awarded for commercial, institutional and public buildings are virtually unchanged from a year ago.

WOMEN and CHILDREN ENJOY the BALANCED DOOR

The DOOR that lets traffic through EASILY

Retail store owners say that ELLISON, the Balanced Door, handles two to three times the traffic which could move thru ordinary doors.

Ellison the BALANCED DOOR

ELLISON BRONZE CO.
Jamestown, New York
representatives in principal cities

Urban Building Surveyed

An eight-city survey by the *Financial Post*, prominent Canadian business newspaper, shows that wherever building volume has weakened in recent months, costs have followed suit. "This," comments the *Post*, "seems to mean that construction is extremely sensitive to the demand level." It goes on to say, however, that "building weakness" cities are few and demand generally is greater than it was last spring. Points of interest revealed by the survey are:

1. Costs in the "building weakness" cities of Regina, Calgary and Halifax are 5 to 10 per cent lower than a year ago, but continue to rise in Toronto (up 15 to 20 per cent), Montreal, Vancouver, Edmonton and Winnipeg.

2. Materials are in better supply, but winter stockpiles are not being replenished from production at the current rate of delivery. Prices average 10 per cent more than last year, and recent railway freight rate increases are expected to send them higher.

3. Labor has won wage increases in the building trades ranging from 10 to 12 per cent across the board. Montreal leads with an 18 per cent boost.

Architects' Act Outmoded?

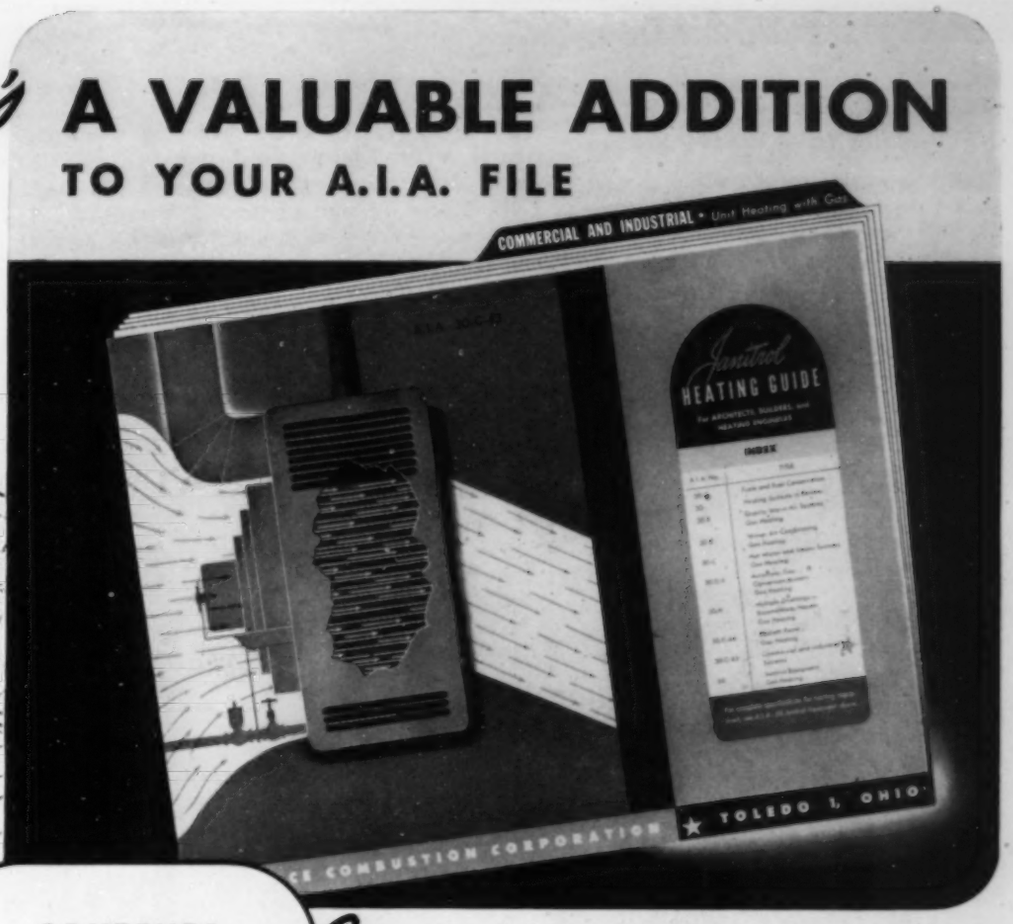
An opinion of interest to architects was voiced recently by a Kitchener, Ontario, Magistrate. In dismissing a charge laid by the Ontario Association of Architects alleging violation of the Architects' Act, His Worship noted that the Act did not permit anyone to design houses over a value of $5000 without being a registered architect. "But," he said, "it is a well known fact now that few, if any, houses are constructed at a cost of less than $5000." The decision is being appealed by the O.A.A.

More Nails on the Way

That hardy perennial, the nail shortage, has again made its appearance. Production is ahead of last year, and no Canadian nails are exported, but a lack of these essential ingredients became evident some months ago. In a brief presented to the Steel Controller, the National House Builders' Association requested appropriate action by the Dominion Government to ensure a supply of nails for essential construction.

A difficulty presented itself in that production of wire rod for nail manufacture is now at capacity, and any increase in nail production has to be made at the expense of other steel products. The government is apparently willing to take this step. Reconstruction Minister C. D. Howe has announced that the manufacture of barbed and other wire for agricultural purposes will be suspended for a few months in order to save material for nail production.

Here's A VALUABLE ADDITION
TO YOUR A.I.A. FILE



CONTENTS

Principles of Unit Heater Operation

A Practical Guide to Selection of Equipment

Typical Floor Plan

Layouts for Commercial and Industrial Installations

Application of Automatic Controls

General Specifications

Combining Heat with Air Conditioning Systems

Photographs of Typical Unit Heater Applications

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This is not a typical piece of advertising promotion, but a sound and comprehensive, semi-technical description of gas-fired unit heaters and how they can best be used for the desired results.

So, if you are engaged in specification work for stores, service establishments, public buildings, or manufacturing plants, this guide will provide many useful suggestions on heating applications that will benefit both you and your clients.

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GAS HEATING EQUIPMENT

WINTER AIR CONDITIONERS · GRAVITY
FURNACES · BOILERS · TRIPLE SERVICE SYSTEMS
UNIT HEATERS · CONVERSION BURNERS

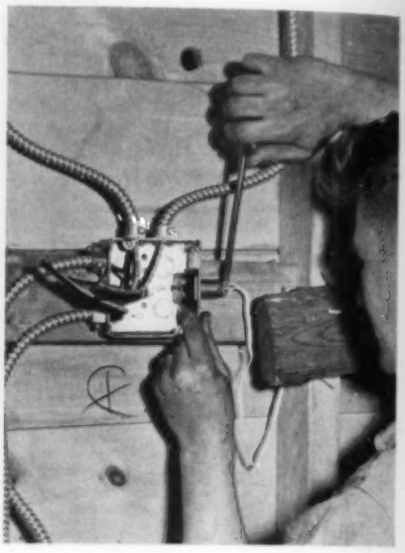
(*Continued from page 149*)

REMOTE CONTROL OF LIGHTS WITH NEW WIRING SYSTEM

A new remote control wiring system has been designed to provide a more flexible method of controlling lights and outlets in the home, farm, office or factory. The system is said to permit the building tenant to switch on lights, outlets or small appliances from any number of points within the building.

The new wiring system differs from conventional ones in that the switches are connected to the outlets which they control by a light-weight Flamenol-insulated 22-gage wire carrying only 25 volts. Finger pressure on the switches activates 25-volt relays mounted at the outlets which in turn either open or close the 115-volt circuit. A small transformer installed somewhere in the building provides the low voltage.

Advantages claimed for the system are: (1) permits control of outlets from many points without the use of comparatively high-priced three- and four-way switches and large quantities of three- and four-conductor cable; (2) eliminates the danger of shock since the switches are connected to only 25 volts; (3) eliminates the use of wall plates and reduces the size of switch boxes because of the small switch size; (4) can be installed in either new or existing structures. General Electric, Wiring Division, Bridgeport 2, Conn.



Relay opens and closes 115-volt circuit

WATER FAUCET

A novel water faucet has been designed with one handle controlling water temperature and the other flow rate. The faucet is made of chrome finished forged brass in three models: the lavatory model, the swing spout for kitchens and restaurant sinks, and the institutional swing spout for laboratories, hospitals, barber shops, etc.

Water faucet handles designed to control independently flow rate and temperature

The temperature mixing valve is self-honing, self-adjusting, which is said to prevent wear and corrosion.

The only other working part, the flow stem, incorporates the *Maytag* seal which is claimed to merely touch the seat with the pressure of the water causing the seal.

The temperature handle may be locked in position if necessary. Cole Valve Co., Duluth, Minn.

(*Continued on page 180*)

This "Two-For-One" Idea Made News in 1947

The Bradley Duo-Washfountain... One Wash Fixture Serves Two

Here are the Features Named Most Important

1. SANITATION-HEALTH SAVINGS. No faucets to touch—no collection of dirty water—self-flushing drain.
2. SPACE SAVING. Two persons wash simultaneously at each DUO. One takes the place of two ordinary wash basins.
3. SIMPLE INSTALLATION. Half the number of piping connections.
4. MAINTENANCE SAVINGS. No faucets to repair and maintain. Simple single sprayhead.
5. WATER SAVINGS. Foot-control is not only sanitary but water is cut off immediately as washers leave.

BRADLEY WASHFOUNTAIN CO.
2227 W. MICHIGAN STREET, MILWAUKEE 1, WISCONSIN
Distributed through Plumbing Wholesalers

Write for new Bradley DUO-Washfountain Catalog 464-D.

BRADLEY Duo Washfountains

ANOTHER HOME with ADEQUATE WIRING Certified

"Adequate wiring is being installed in the houses on my project because we want our homes to be convenient and attractive to the buyer for many years to come. Adequate Wiring guarantees this because it is the Key to Modern Homemaking," says Mr. Paul E. Lapp, prominent Dayton, Ohio, builder.

The sign of the times is . . .

"Certified Adequate Wiring"

PROOF ADEQUATE — another home-building project featuring Certified Adequate Wiring — the Paul E. Lapp development, Dayton, Ohio.

What It Means To You: Certified Adequate Wiring makes today's home buyers tomorrow's boosters. It helps you build houses that stay modern for years to come. It helps you sell houses easier and quicker because: (1) it overcomes today's buyer resistance; (2) it assures you of promotional support from your local electrical industry.

What It Means To The Home Buyer: Adequate Wiring makes even a moderate-cost house, or a remodeled home, *modern*. It provides not only for today's electrical needs but for those of tomorrow—including such things as kitchen and laundry appliances which can be covered by a "packaged mortgage."

What "Adequate Wiring" Means: An adequate electric service entrance; enough circuits, enough convenience outlets; permanent lights and switches.

Here's What You Can Do About It:

1. Use the services of your local Adequate Wiring Bureau in preparing complete wiring layout for every floor plan.

2. Install Adequate Wiring in accordance with this layout.

ADEQUATE WIRING Certified

3. Obtain your "Proof Adequate"—a certificate to present with each deed.

4. If there is no Adequate Wiring Bureau in your area, *write us* for details of how to take advantage of "Adequate Wiring" as a sales feature.

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adequate wiring
BUREAU

CLIP AND MAIL TODAY *for free information and material!*
NATIONAL ADEQUATE WIRING BUREAU, Dept. AR-7
155 E. 44th Street, New York 17, N. Y.
Please send me, without charge, information on how to take advantage of Adequate Wiring as a sales feature.

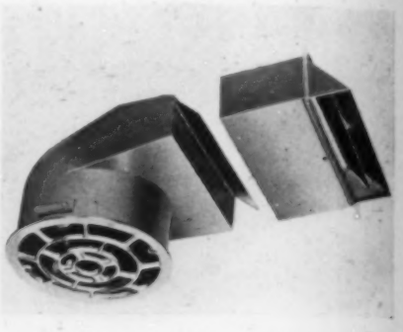
NAME.....
FIRM.....
STREET ADDRESS.....
CITY.....STATE.....

(*Continued from page 178*)

CEILING FAN

The improved *Shepler Model 81* ceiling ventilating fan designed for use over cooking ranges or in any room where wall space cannot be used requires only 7¼ in. joist space. Once installed, only the cast aluminum grille is visible. The 48 watt motor and fan assembly is attached to the grille which permits the ready removal of the entire working mechanism for cleaning.

The louvers are arranged to provide high efficiency. One is mounted in the end of the fan housing while the other is mounted in the outside wall hood. Both open automatically from fan pressure and are gravity closing when the ventilator is not in use. Duct space between the louvers is said to provide a dead air lock preventing condensation. Sponge rubber seats on the louvers insure quiet operation and are said to prevent cold air back drafts. This model has a 10 in. fan blade and is designed for use on 110-120 volt service. Rating is 650 cfm (free air delivery). Shepler Mfg. Co., 1325 Sheffield St., Pittsburgh 12, Pa.



Fan can be installed in small joist space

WATERPROOFING AGENT

A transparent waterproofing liquid called *Crystal* has been developed which is said to make common types of masonry completely water repellent without destroying their "breathing" qualities.

By applying one coat of this agent to the exterior, capillary attraction is claimed stopped, eliminating efflorescence which deposits unsightly salts on the surface.

The liquid is said to penetrate and coat the microscopic pores of masonry without clogging or sealing the pores so that natural moisture within the wall is not trapped and may evaporate.

After 500 hours exposure to water stream, treated wall (left) remains dry while untreated section (right) is waterlogged

Crystal waterproofing is said to dry in a few hours, but two weeks curing time is recommended before painting. Since the agent penetrates the pores of the masonry, the color and texture of the surface is claimed to be unaffected.

The liquid can be applied with brush or spray; the surface need only be clean and free from stearic or wax-type waterproof coatings. Wurdak Chemical Co., 4952 Fyler Ave., St. Louis 9, Mo.

NYLON CARPET

Nylon's strength, abrasion resistance and cleanability are reported to assure long life for recently introduced carpet woven with this plastic.

The carpet is pre-shrunk during manu-

(*Continued on page 182*)

With

ERIE ARCHITECTURAL PORCELAIN ENAMEL

For Service Stations, Food Stores, Restaurants, Offices and Factory Buildings . . . for remodeling store fronts, The Erie Enameling Company puts 4 aces in your hand.

(1) Your Architect recommends design and color.

(2) The Erie Enameling Company engineers work out your plans in practical form.

(3) Erie processes of manufacture assure enduring porcelain enamel ready for speedy and accurate erection.

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Before You Modernize . . . Consult With Us

WRITE *Today* FOR THIS BULLETIN

THE ERIE ENAMELING COMPANY
ERIE, PENNSYLVANIA
Member of Architectural Division Porcelain Enamel Institute.

Big nation-wide chains know the customer-attracting value of air conditioning in retail stores. Besides, they know its cost must be in line with other merchandising helps and that it must be dependable. This explains why so many chains are repeat buyers of Carrier Weathermakers for both old and new stores.

S. H. Kress variety stores, Lerner dress shops and Walgreen drug stores are among the national buyers that have installed Carrier Weathermakers again and again. One chain has just ordered its 125th Carrier unit.

System Weathermakers give a store the advantages of efficient, customized air conditioning with all the convenience and economy of an easily installed, factory-assembled unit. They are available in a choice of capacities to meet the exact needs of individual stores. They can provide winter heating as well as summer cooling. Designed to operate with duct work from concealed locations.

Like every other Carrier unit, System Weathermakers are backed by Carrier's pioneering experience in air conditioning. Architects and consulting engineers find Carrier® engineers eager to help with the plans for every type of air conditioning. Their aim is always a system that gives the greatest satisfaction. Carrier Corporation, Syracuse, New York.

Carrier AIR CONDITIONING · REFRIGERATION · INDUSTRIAL HEATING

(*Continued from page 180*)

facture and is said to retain its original width and length through repeated washing with soap and water.

Claimed to be non-flammable, the pile will melt when exposed to flame but is said to be self-extinguishing after the flame is removed.

The nylon carpet if stored clean is said to need no special protection from moths.

Available colors include beige, gray and pastel green, used in a single shade or in two shades of the same color. The carpet has a scroll-like pattern and incorporates a bas-relief effect. Nye-Wait Co., Auburn, N. Y.

MIDGET LOUVERS

Use of midget aluminum louvers, where insulation has been applied is said to help prevent condensation problems.

Where the sheathing boards are nailed directly to the roof joist on a flat roof, the *Midget Louvers* can be installed at the eaves between the joists.

For gabled roofs, the louvers can be installed at the eaves or soffit and at the gable ends to cause better circulation of air over the insulation and up the rafters.

Unexcavated areas can be ventilated by installing the louvers through the siding above the sills.

Louvers help give adequate ventilation

The Midget Louver, 2½ and 4 in. in diameter, is screened to keep out insects and requires no nails or screws for installation; louvers are tension fitted into holes drilled in the structure. Midget Louver Co., 8 Wall St., Norwalk, Conn.

Simulated walnut finishes are reproduced on a base of Presdwood for wall panelling

WALL PANELS

Available in simulated cross-fired figured walnut and bleached walnut finishes, *Ser-Wall* panels are designed to provide durable, decorative wall beauty for home, industrial, commercial and institutional use. The wood grain is reproduced on a base of tempered Presdwood by a special lithographing operation after which the panels are coated with clear laquer to protect the surface.

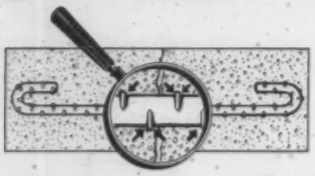
(*Continued on page 184*)

The first of a Series in the interest of more efficient use of steel...a vital American resource.

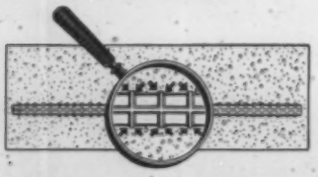
BALANCED

DESIGN and STRENGTH

MULTI-RIBBED for MAXIMUM ANCHORAGE
HIGH STRENGTH for STEEL—CONCRETE SAVINGS



Old type reinforcing bars depend on localized anchorage.



Multi-Rib improved bars distribute anchorage and loads.

"30 years ahead of the building codes" — that's the verdict on the Laclede Multi-Ribbed Reinforcing Bar. All tests show that the long sought balance between high strength and adequate anchorage has been achieved. The combined factors of high yield point (in excess of 55,000 p.s.i.) plus improved deformations give greater reinforcement strength and provide a more efficient use of steel . . . conserving America's most important resource while effecting material savings on the job.

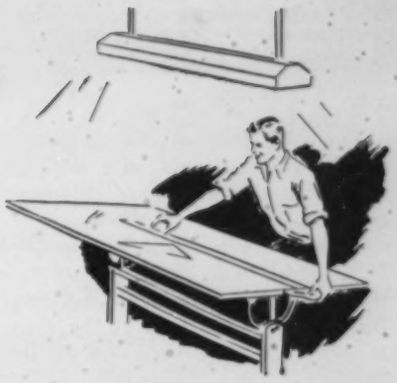
Laclede bars meet ASTM Specifications A305-47T, for improved reinforcing bars, developed in the interest of modern, efficient use of steel.

Write us about specifying Laclede Multi-Rib bars on your jobs.

LACLEDE
Producers of Construction Steel

LACLEDE STEEL COMPANY
St. Louis, Mo.

Planning Hospitals?

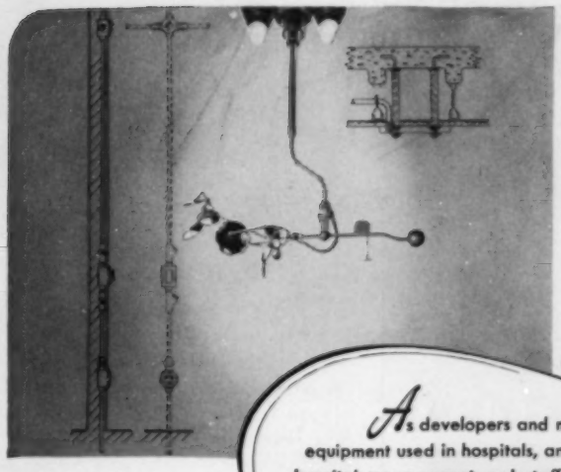


GET THE WHAT...WHERE...AND WHY

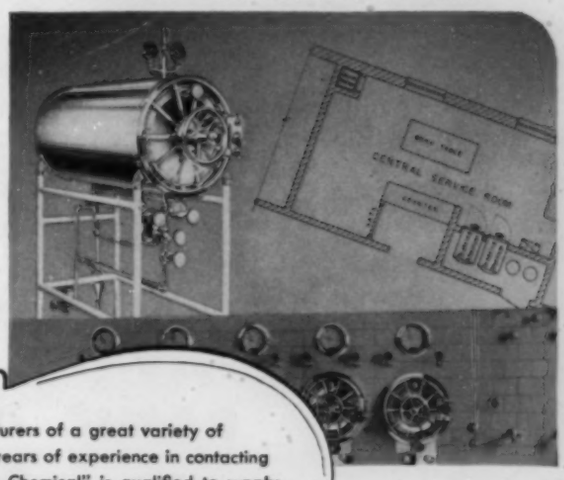
ON MAJOR HOSPITAL EQUIPMENT

FROM MEN WHO OUTFIT MANY HOSPITALS

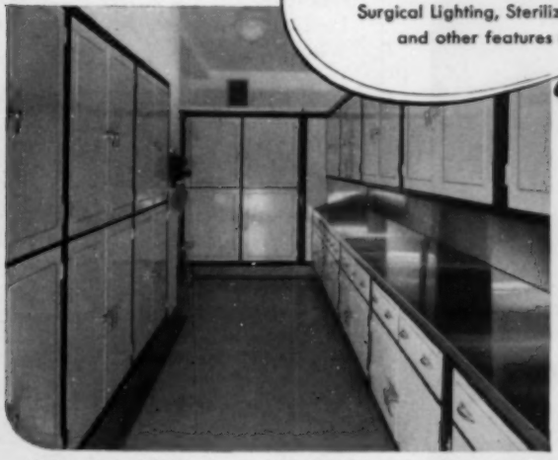
OPERAY SURGICAL LIGHTS



SCANLAN-MORRIS STERILIZING EQUIPMENT



As developers and manufacturers of a great variety of equipment used in hospitals, and with years of experience in contacting hospital management and staffs, "Ohio Chemical" is qualified to supply valuable assistance and engineering data to hospital architects. Mail the coupon for detailed information on Surgical Lighting, Sterilizing Equipment, Recessed Cabinets, and other features of modern hospital designing.



SCANLAN-MORRIS CUSTOM-BUILT RECESSED CABINETS

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THE Ohio Chemical & MFG. CO.

1400 East Washington Ave., Madison 3, Wisconsin

Represented in Canada by Oxygen Company of Canada Limited, Toronto and Montreal, and Internationally by Airco Export Corporation, 33 West 42nd Street, New York

BRANCH OFFICES IN PRINCIPAL CITIES

THE OHIO CHEMICAL & MFG. CO.,
1400 East Washington Ave., Madison 3, Wis.

Send information on:

☐ Surgical Lights; ☐ Sterilizing Equipment;
☐ Recessed Cabinets; ☐ Reprint of article, "Advantages of Central Oxygen Piping System for Hospitals."
(Please attach professional card or letterhead)

Name _____

Address _____

City _____ State _____ AR

(*Continued from page 182*)

The manufacturer claims that the panels can be cleaned with mild soap and water without peeling, chipping or cracking.

Panels come in a variety of sizes from 16 by 72 in. to 48 by 96 in., and ⅛ in. thick, with beveled edges and scored borders enabling them to be butted together and nailed in the score lines. Service Products Division, Woddall Industries, Inc., 2135 Claumet Ave., Chicago 16, Ill.

AIR CONDITIONER

Available in three and five ton capacities a packaged air conditioner is designed to cool, dehumidify, filter and circulate air. For winter use the unit may be equipped with heating coils to operate as a warm air system.

The *usAirco* features a hermetically sealed compressor-motor unit which eliminates the refrigerant seal between the units. A water-saving condenser coil has been used to economize operation. United States Air Conditioning Corp., Minneapolis, Minn.

for doors that must not halt or fail . . . . .

ANOTHER GREAT C&L PRODUCT

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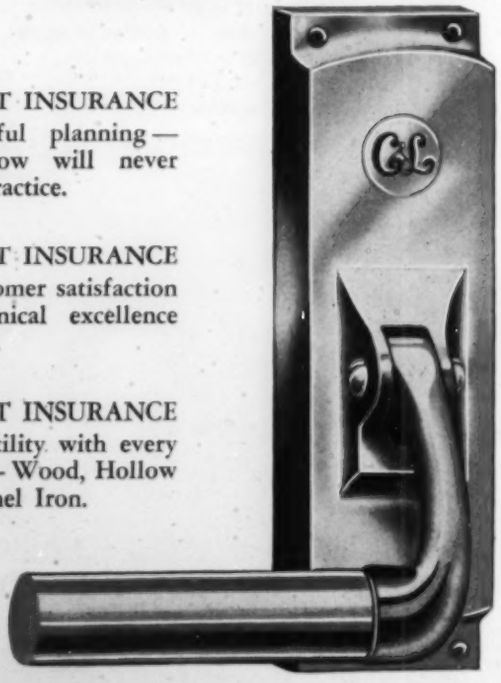
INSTANT EXIT

PANIC DEVICES

THEY'RE BEST INSURANCE for your careful planning — exit traffic flow will never bottleneck in practice.

THEY'RE BEST INSURANCE for lasting customer satisfaction — with mechanical excellence that never fails.

THEY'RE BEST INSURANCE for complete utility with every type of frame — Wood, Hollow Metal or Channel Iron.



WRITE TODAY for descriptive literature or refer to your Sweet's catalog, for Mortise, Rim, and Vertical Rod types. Monarch easy-order information will speed your specification listing.

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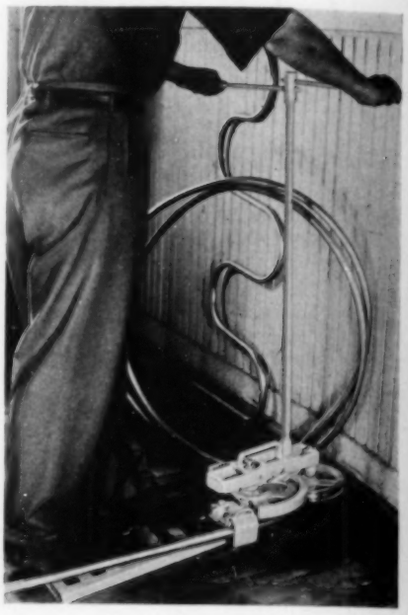


Bender fabricates radiant heating coils

TUBE BENDER

Designed especially for radiant heating installations, a lightweight portable copper tube bender is said to bend both un-annealed hard and soft copper tubing (types K and L) to a 180° return bend. The bender is available in suitable radii for tube sizes of ⅜ in. to 1 in. The manufacturer claims that changeover of formers and rollers from one size to another takes less than a minute. Tal Bender, Inc., 417 N. Water St., Milwaukee 2, Wisc.

Ready-made logs aid rapid construction

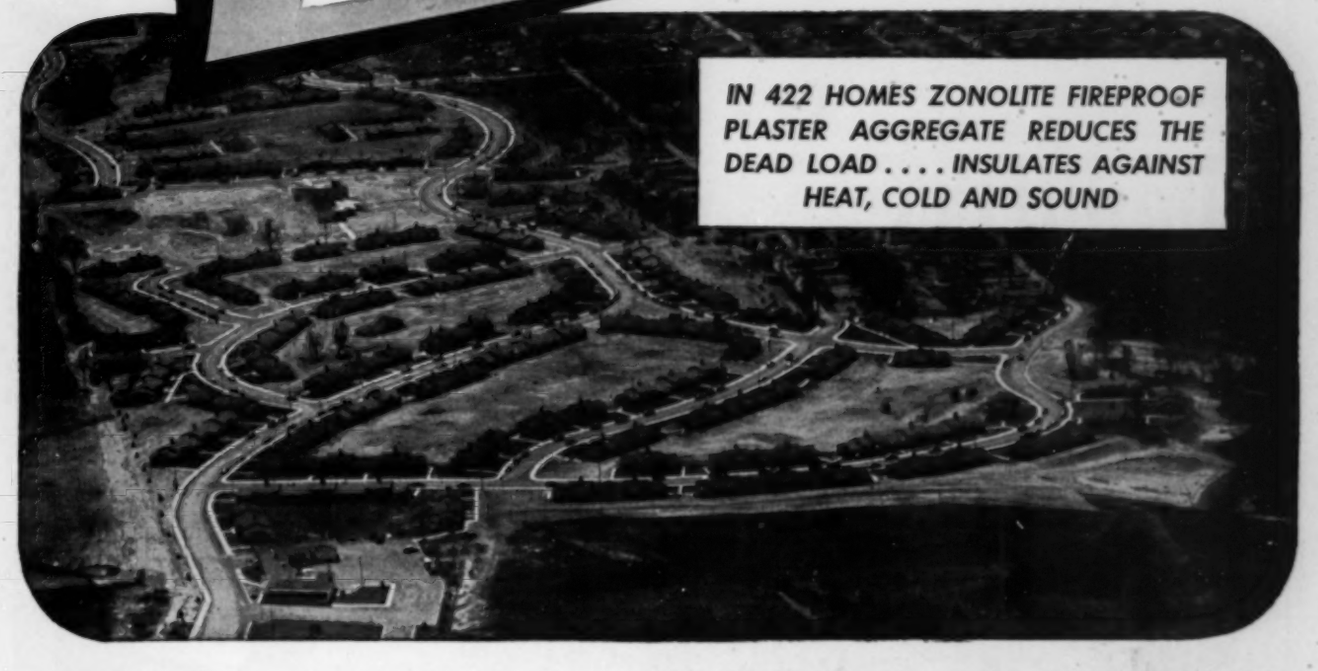
FACTORY MADE LOGS

Surprisingly enough, factory-made logs are now available in Canada. They are manufactured to uniform size, are tongue-and-grooved so as to lock together and may be used for rapid construction by relatively unskilled labor.

(*Continued on page 186*)

ZONOLITE FIREPROOF PLASTER USED IN HUGE HOUSING PROJECT

Charles Noble, Architect, Detroit
The Esslinger-Misch Co., Contractors, Detroit



Zonolite Plaster Speeds Construction and Provides Values Found in NO Other Material

In "Pittsfield Village," large Michigan housing project, Zonolite Plaster Aggregate was used throughout. This material provided a lightweight, fireproof plaster of high insulating and sound deadening qualities. The Zonolite plaster was applied over gypsum board lath.

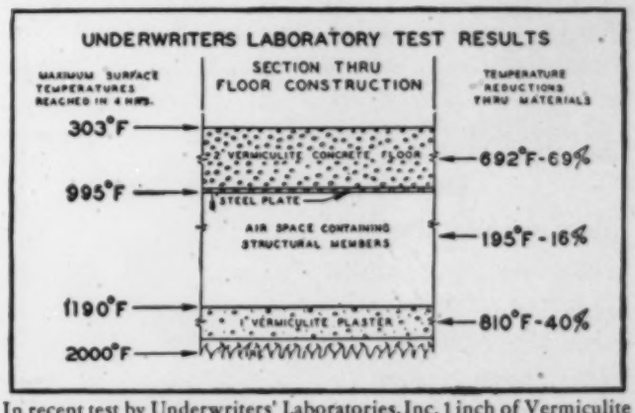
Architects and engineers are interested in the weight saving features of Zonolite Plaster Aggregate. It weighs only 8 pounds per cubic foot as compared to 100 pounds per cubic foot for sand, thus greatly reducing dead load in buildings—as much as five tons in the average house. As it applies faster and easier, it speeds up construction.

For full details about Zonolite, fill in and mail the coupon.

ZONOLITE COMPANY

Dept. AR-78 • 135 S. La Salle St., Chicago 3, Illinois

UNDERWRITERS GIVE *VERMICULITE PLASTER 4-HOUR FIRE RATING



In recent test by Underwriters' Laboratories, Inc. 1 inch of Vermiculite Plaster on metal lath used as protection for steel floor and structural members, received 4-hour fire rating, the highest rating awarded any material. Chart shows results and maximum temperatures reached. This construction is the lightest, least expensive and thinnest fire protection ever to withstand this test.

*Zonolite Plaster Aggregate is a brand of Vermiculite.

ZONOLITE BRAND VERMICULITE INSULATION

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City..... *Zone*..... *State*.....

Please check: ☐ Architect ☐ Engineer ☐ Draftsman ☐ Contractor

mullions and spandrels by

ALBERENE

Regular grade Alberene's soapstone window mullions and spandrels are financially and esthetically *right* for your job. They're greenish-blue . . . harmonize with any decorative pattern. *And* their price will put a grin on the face of even your most budget-minded client.

For samples and further information, write or phone—

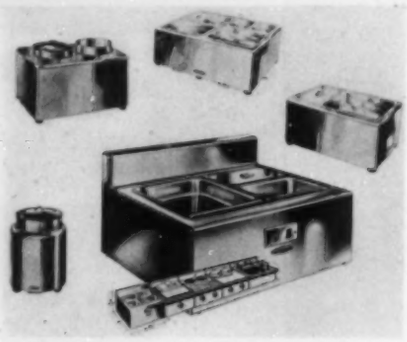
ALBERENE STONE CORPORATION
of VIRGINIA
419-4th Ave., New York 16, N. Y.

ARCHITECTURAL ENGINEERING

TECHNICAL NEWS AND RESEARCH

(*Continued from page 184*)

The heart of each log is bored out to eliminate the possibility of rot and to permit equal seasoning. The hollow core also provides insulation and space for electrical conduit. Air-Lock Log Construction Co. Ltd., 80 King St., W., Toronto, Ont.

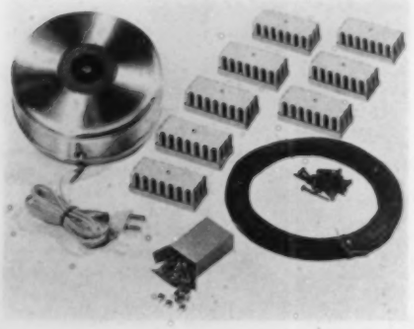


Thermostatically controlled food warmers

FOOD WARMERS

Again available is the complete line of nine *Scotty* stainless steel, thermostatically controlled, portable food warmers. These warmers designed for use in restaurants and other food service establishments have (on most models) a 12 in. by 20 in. top opening which permits 30 different pan top combinations. Another feature is the 5-way temperature control, giving correct storage temperature for each food.

A new model, the Scotty Mate (SSY-110) is adaptable as an individual unit, in banks of two or more or can be included in an existing bank of matched electrical counter kitchen appliances. Seco Co., Inc., 5206 S. 38th St., St. Louis, Mo.



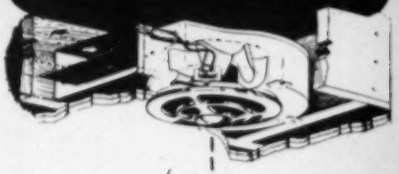
Fire alarm system said to provide coverage of houses up to 2000 sq. ft. in area

HOME FIRE ALARM

A new low-priced home fire alarm consists of an alarm unit, 8 fire detectors, wire and accessories, said to provide

(*Continued on page 188*)

MRS. HOUSEWIFE IS CRYING FOR *Blo-Fan* CEILING VENTILATION



DRY HER TEARS...
GIVE HER
WHAT SHE WANTS...
SPECIFY...

Blo-Fan ELECTRIC CEILING VENTILATOR

Cooking onions is no problem in a BLO-FAN equipped kitchen...because BLO-FAN (being installed in the ceiling, directly over the range) co-operates with nature to provide the most efficient ventilation available. BLO-FAN'S unique design combines the power of a blower with the efficiency of a fan. The totally enclosed motor, cooled by the air stream, assures trouble free operation. See Sweet's, 29b/12, or write for complete information.

Blo-Fan

PRYNE & CO., INC.
POMONA, CALIFORNIA
LOS ANGELES SAN FRANCISCO
CHICAGO NEW YORK

World News
City News Editorial
DAILY CHRONICLE
The Weather
SPACE SAVING PARTITIONS IN 1084 NEW APARTMENTS
Gold Bond Solid Partition System provides more living space in Amsterdam Houses in N.Y.
New York City Housing Authority O.K's.
SHOT IN HIS OFFICE IN HEADQUARTERS
Get Latest Type, Says Inventor
OPERATORS CLAIM PEACE LIKELY AS
All 6 Bodies Removed In Parking-Lot Fire
'UNITY' AGITATION ACTIONS INDICATE

HERE'S another big job where Gold Bond Solid Partitions, of fireproof gypsum plaster and metal lath, will save about 4 inches per wall over old style walls. This system, employed throughout the Amsterdam Housing project in New York, will actually provide far more living space. Why not look into the Gold Bond Solid Partition system for your next job? You'll find it fully described in Sweet's. Or, for a 15 minute demonstration by your local Gold Bond representative, just drop us a card. No obligation, of course!

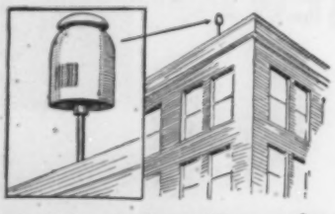
NATIONAL GYPSUM COMPANY
BUFFALO 2, N. Y.

You'll build or remodel better with

Gold Bond

Lucky Last Winter

Lucky the building owner who modernized his uncontrolled steam heating system with a Webster Moderator System in time for the 1947-48 heating season. Frequent cold waves made it necessary to keep heat on for extended periods. With Webster Moderator Control, there was no waste of fuel through overheating, no heating complaints.



In the Webster Moderator System, an Outdoor Thermostat actuates a central control which varies heat delivery with changes in outdoor temperature.

Webster Moderator Controls can secure "controlled-by-the-weather" comfort for even the hardest-to-heat office or apartment in your building. An Outdoor Thermostat automatically varies steam supply to meet weather conditions. And *controlled* heat means *adequate* heat on cold days, *minimum* heat on mild days.

In each Webster Moderator System installation, properly sized Webster Metering Orifices are installed in radiator valves to balance heat distribution throughout the building.

Start now to insure next winter comfort by modernizing your present heating system with Webster Moderator Control. Write us about your problem. We will pass it on to your local Webster Representative. He will be glad to work on it with you.

Address Dept. AR-7

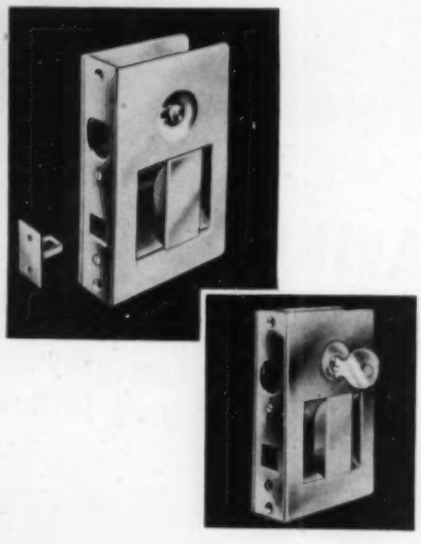
WARREN WEBSTER & CO.
Camden, N. J. : : Representatives In Principal Cities
In Canada, Darling Brothers, Limited, Montreal

Webster HEATING

(Continued from page 186)

complete coverage for houses up to 2000 sq. ft.

The 7 in. alarm unit contains an automobile-type horn, relay and transformer. Insulated wire connects the alarm to the fire detectors which contain a fusible element which melts before the temperature in the fire danger area reaches 170° F. Ingersoll & Co., 502 N. Prior Ave., St. Paul, Minn.



Lock is adaptable to various door widths

SLIDING DOOR LOCK

Designed to include all the features that are being demanded for sliding door operation, a unit-type lock recently introduced is said to be adjustable to various door thicknesses and easily installed without mortising.

Sliding doors are closed with a small bar recessed in a cup in the escutcheon plate.

Three types of escutcheons, tooled for ready interchangeability, make the lock adaptable to different requirements as to the closing operation, security and finish. The lock can fit any door thickness from $1\frac{1}{8}$ in. to $1\frac{5}{16}$ in.

Each lock is adaptable to either right- or left-hand doors with or without dead lock on either side and emergency unlocking feature opposite. The escutcheon measures $4\frac{1}{2}$ in. by $2\frac{7}{8}$ in. All exposed parts are brass. Adams-Rite Mfg. Co., 540 Chevy Chase Drive, Glendale, Calif.

FURNITURE SHOWROOM

The Edgewood Furniture Co., featuring the William Arbruster Collection, has recently opened a new factory-showroom. Edgewood Furniture Co., Inc., 208 E. 27th St., New York 16, N. Y.

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When convenience counts and comfort is important you'll appreciate the central location, the friendly hospitality, the cheerful, modern rooms of Hotel Cleveland.

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HOTEL CLEVELAND
Cleveland, Ohio

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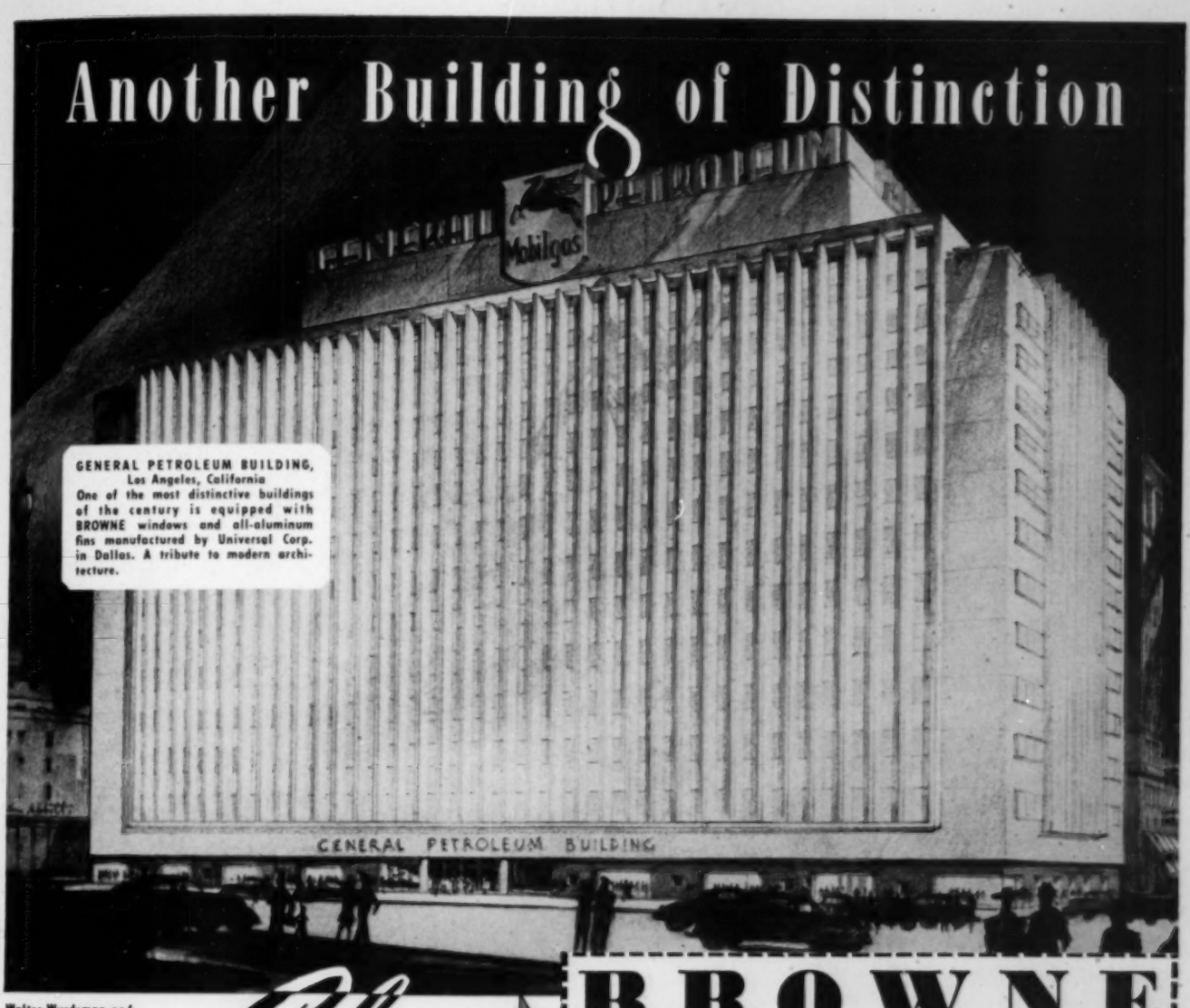

GENERAL PETROLEUM BUILDING,
Los Angeles, California
One of the most distinctive buildings of the century is equipped with BROWNE windows and all-aluminum fins manufactured by Universal Corp. in Dallas. A tribute to modern architecture.

Walter Wurdeman and Welton Beckett, Architects

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BROWNE
folding type aluminum
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Aluminum or Bronze

"Miracles in Metals"

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